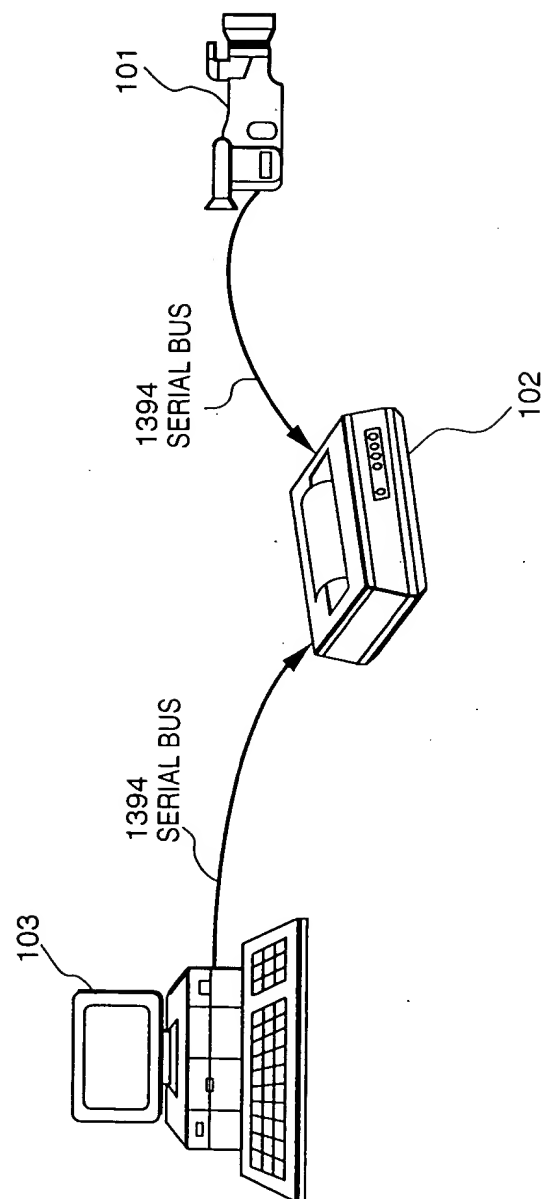


FIG. 1A



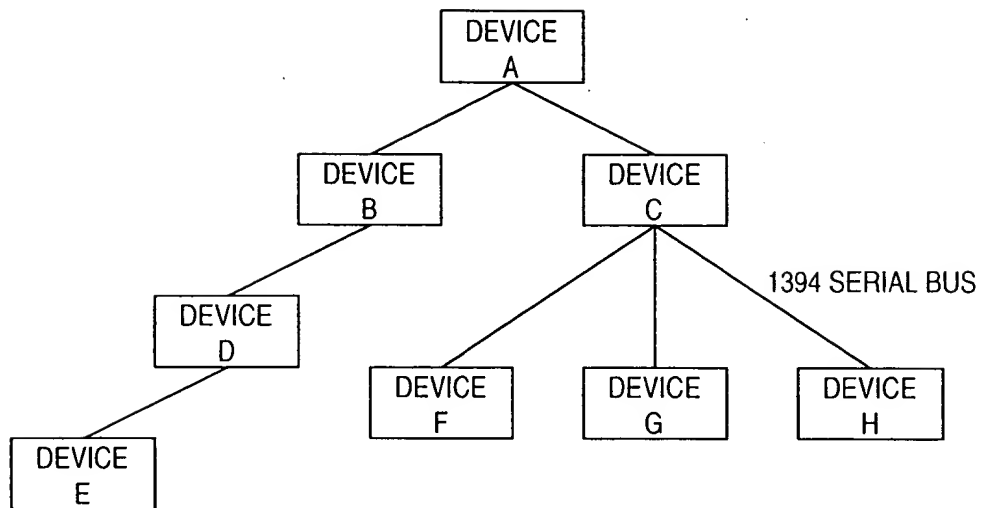
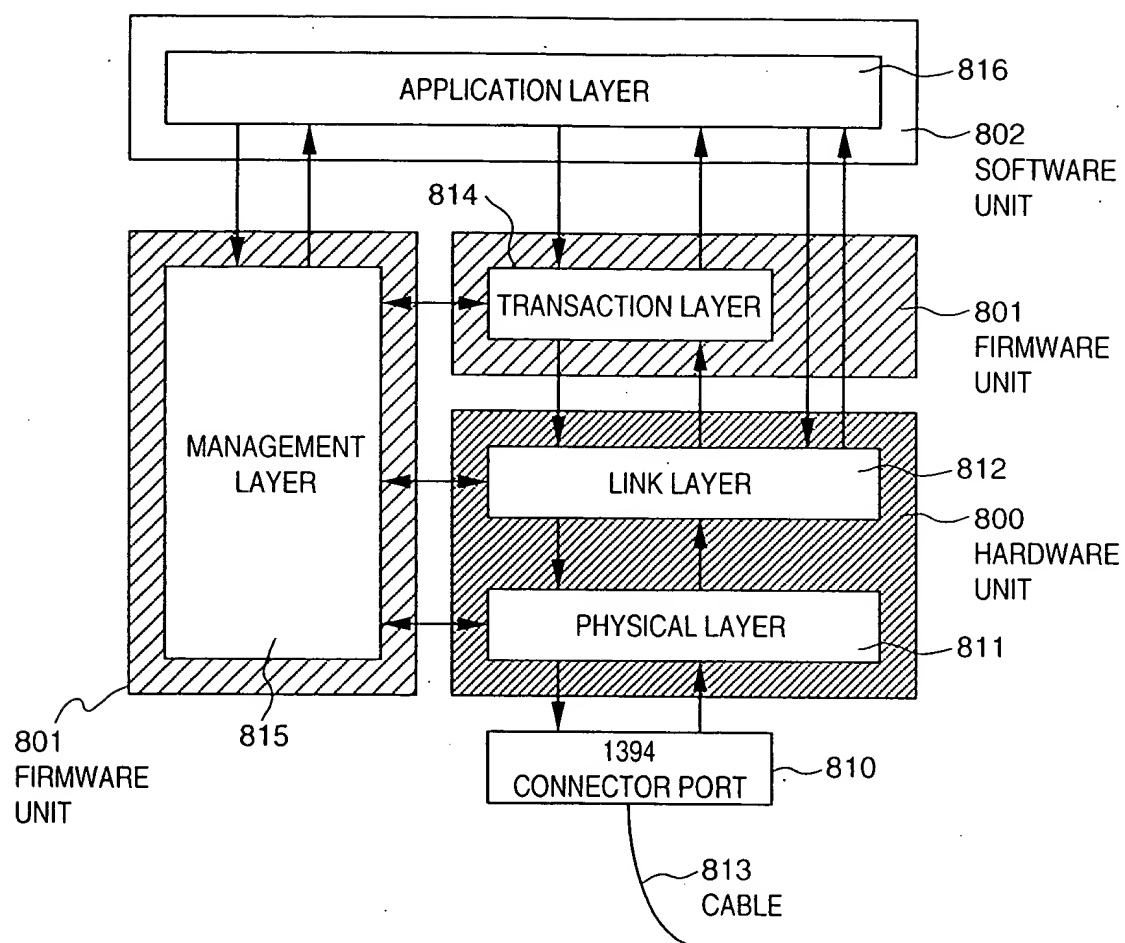
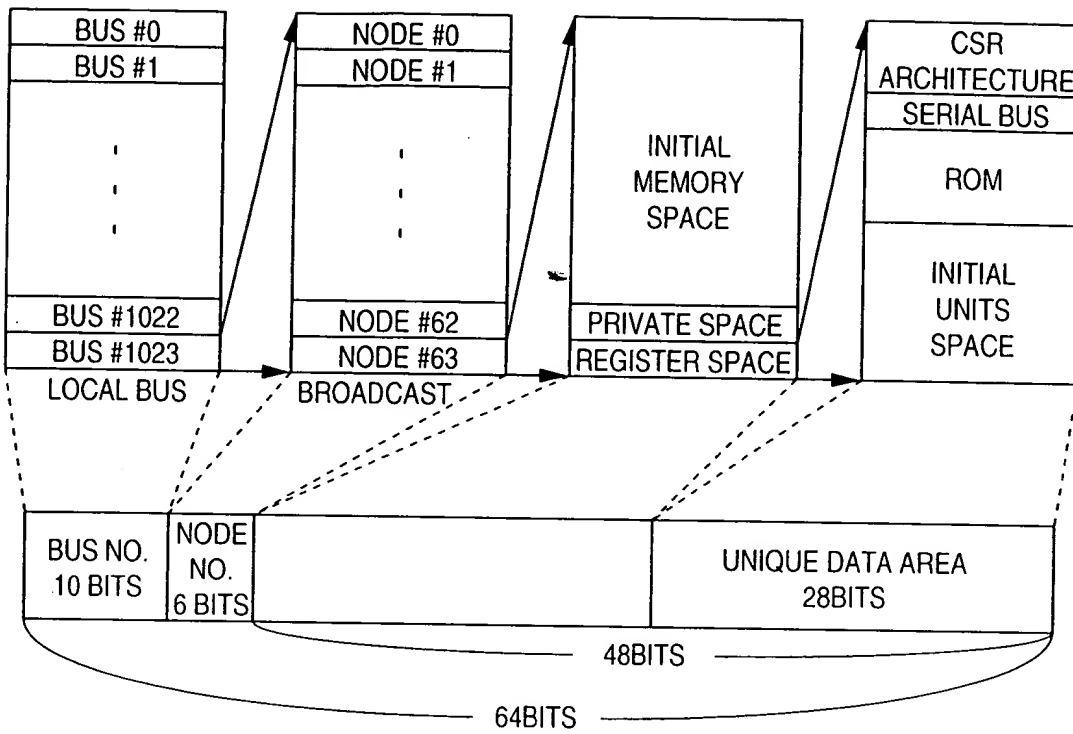
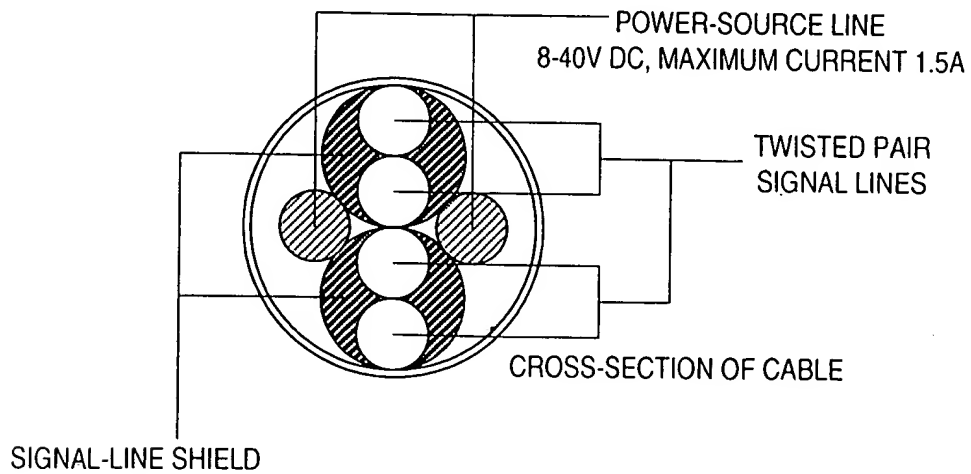
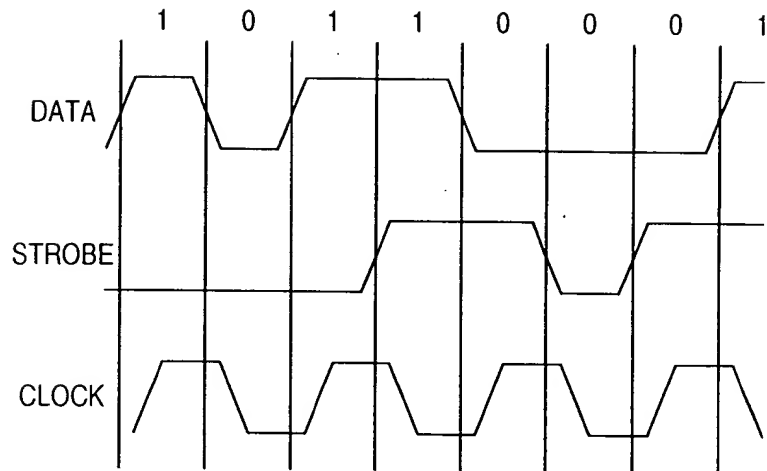
**FIG. 1B**

FIG. 2



**FIG. 3****FIG. 4**

**FIG. 5**

CLOCK : EXCLUSIVE-OR SIGNAL BETWEEN DATA AND STROBE

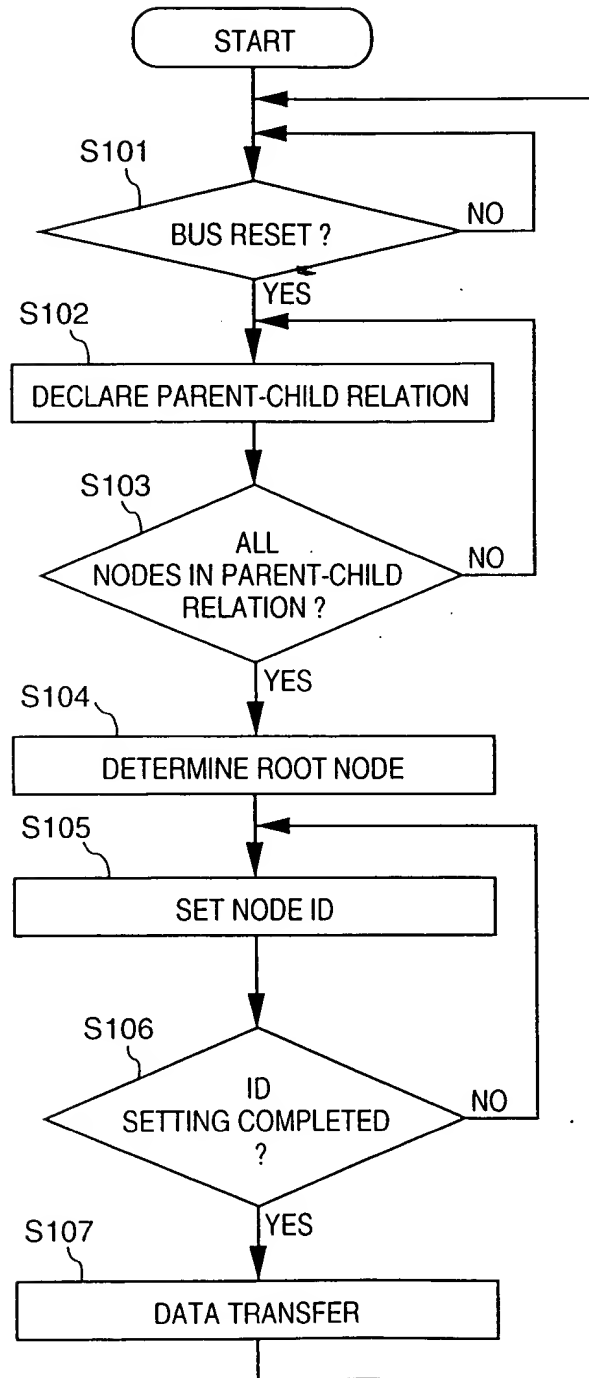
**FIG. 6**

FIG. 7

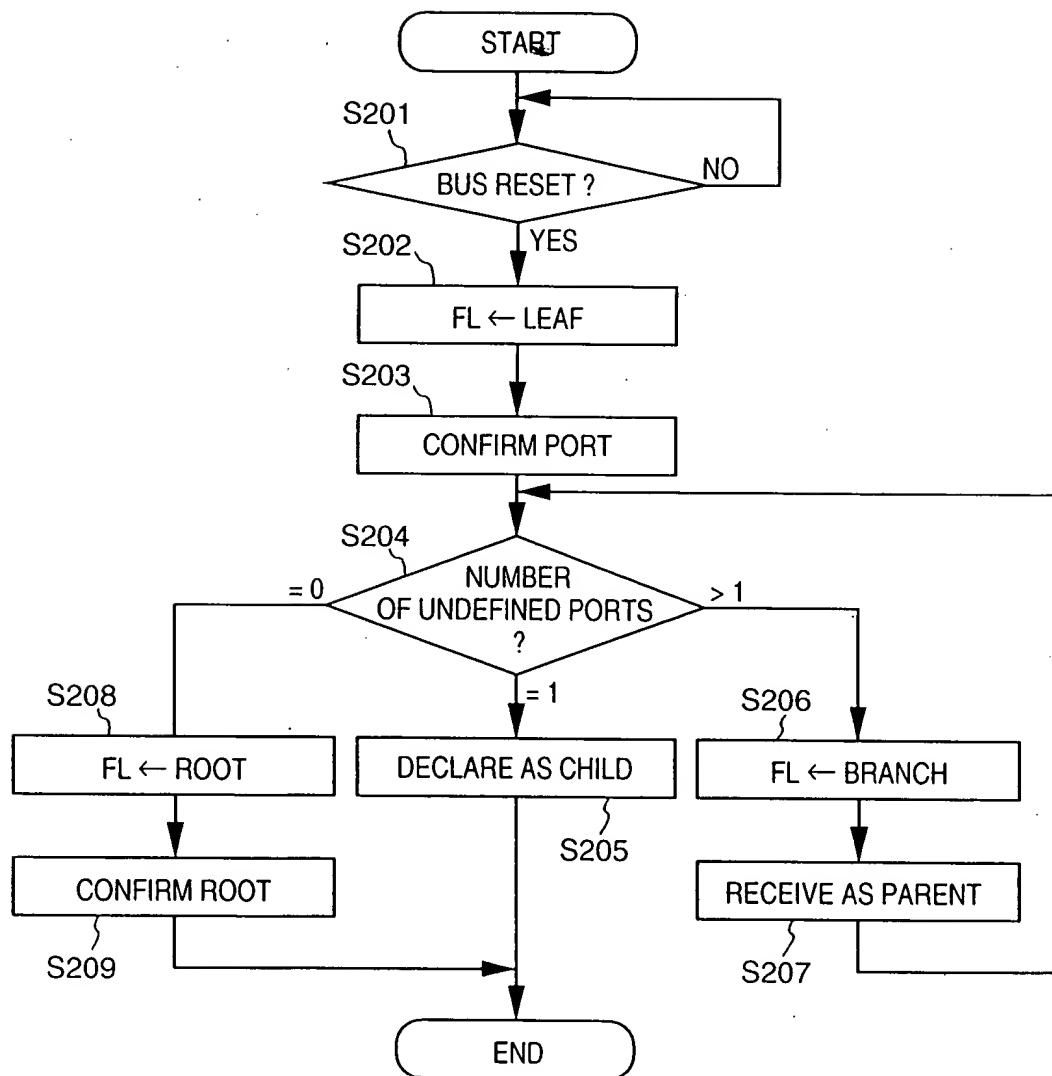
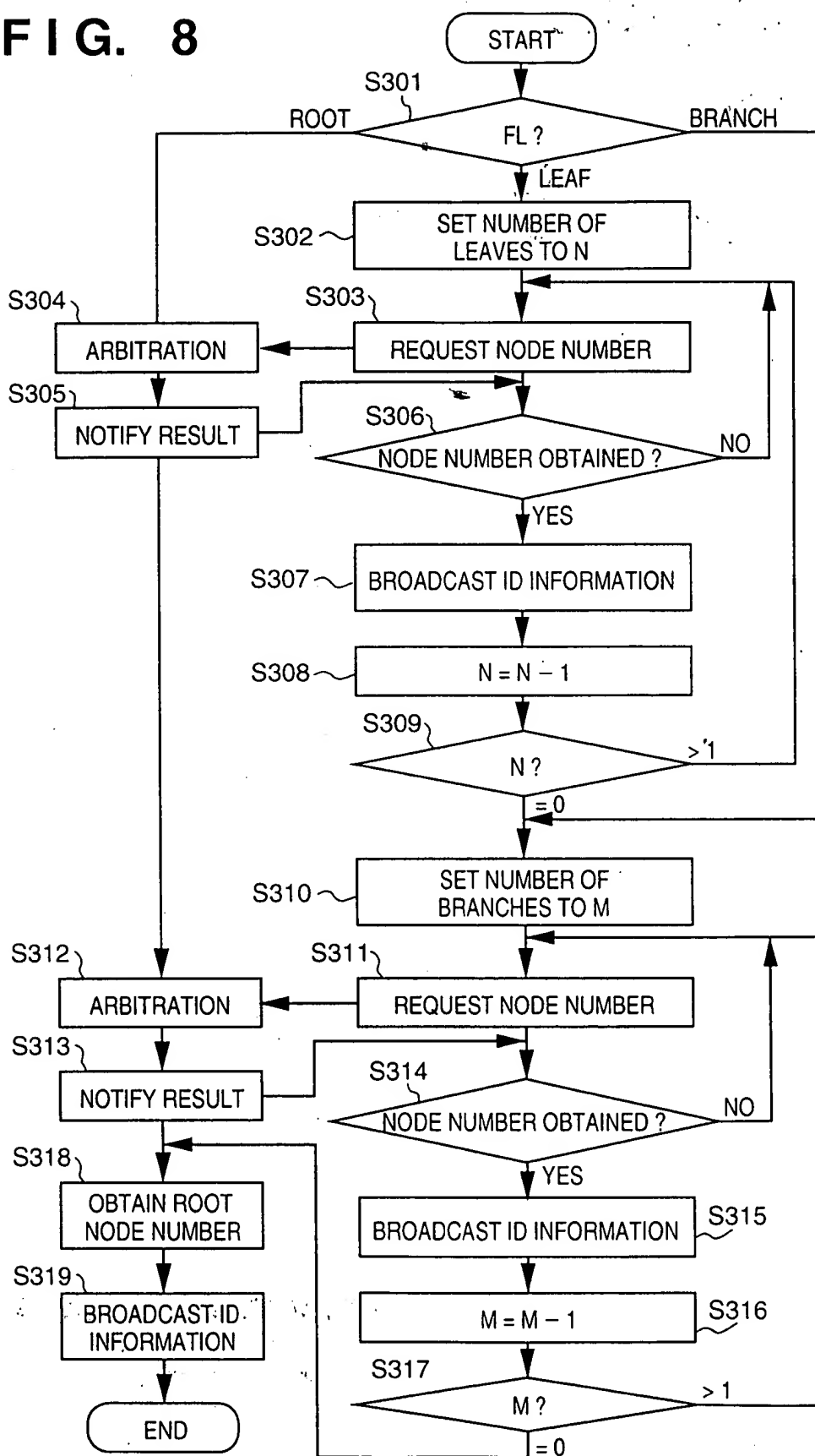


FIG. 8





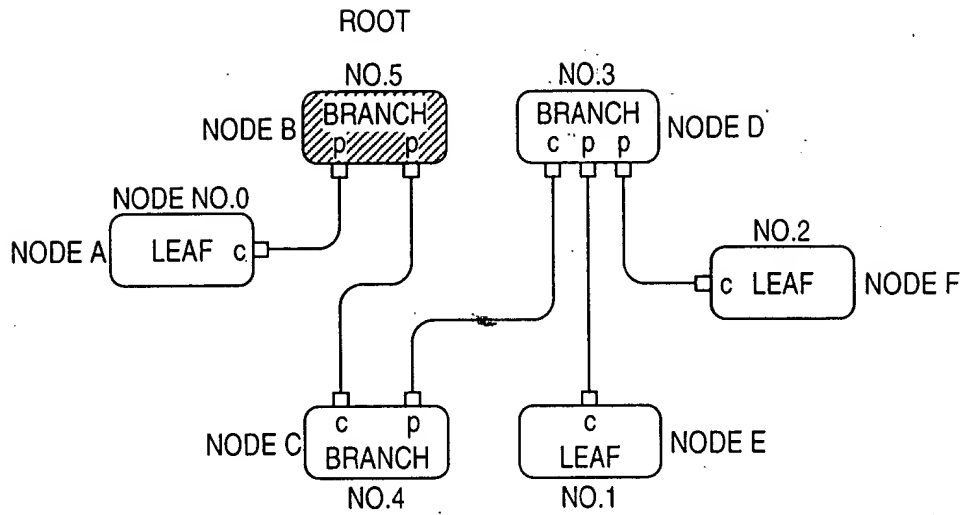
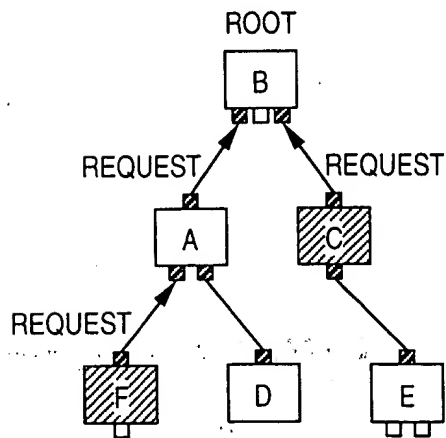
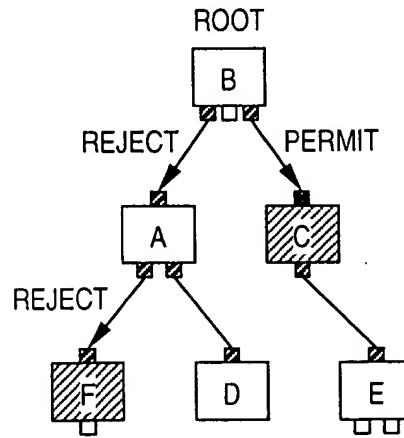
**FIG. 9****FIG. 10A****FIG. 10B**

FIG. 11

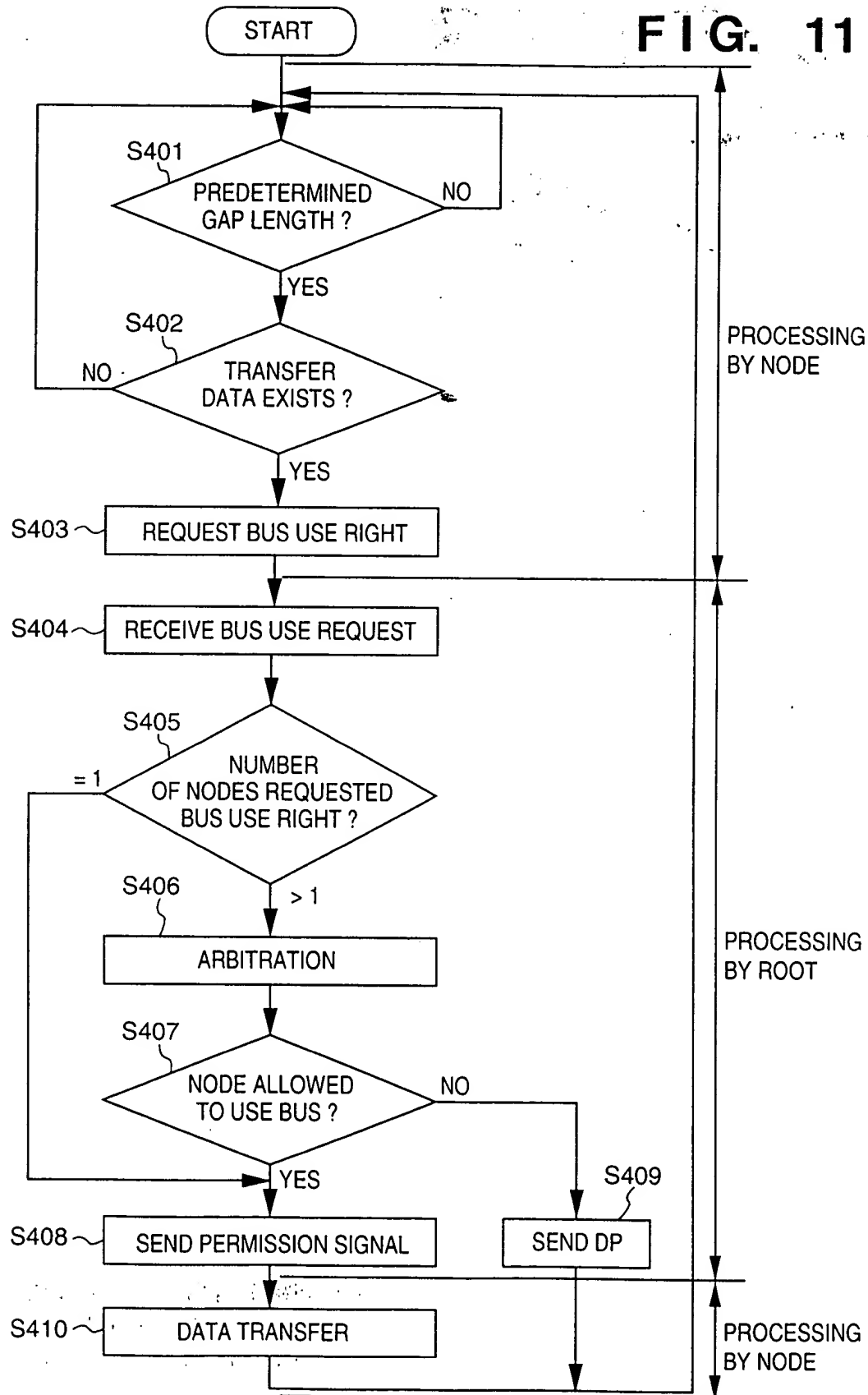


FIG. 12

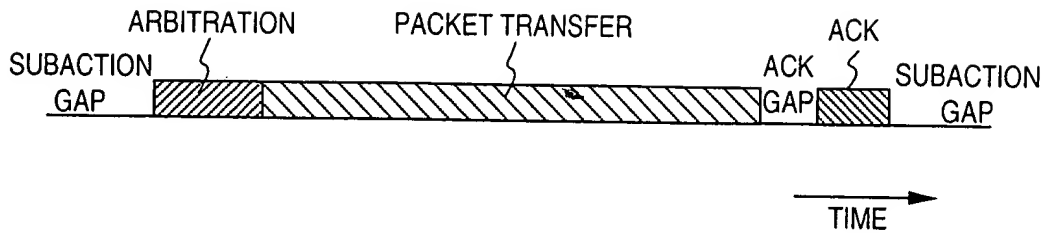


FIG. 13

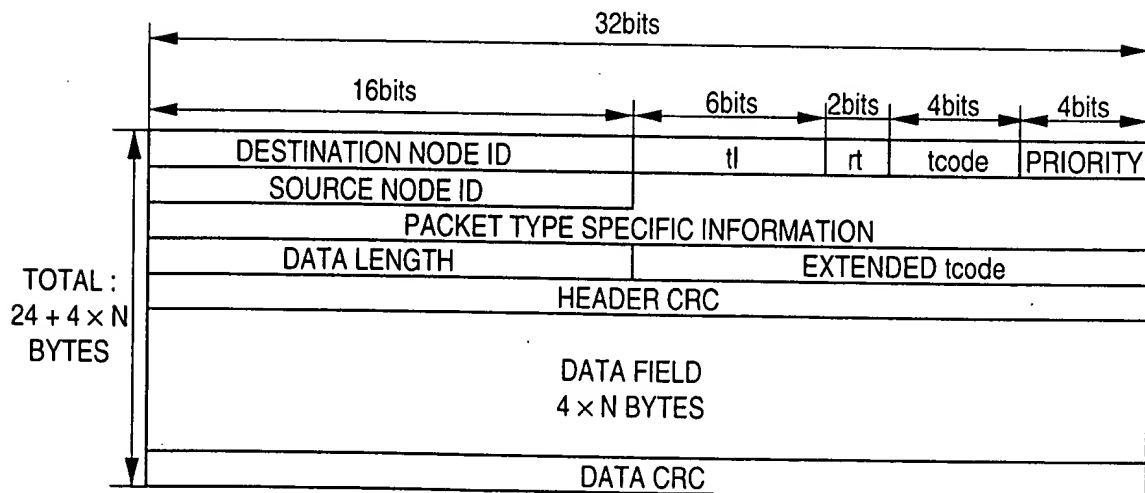
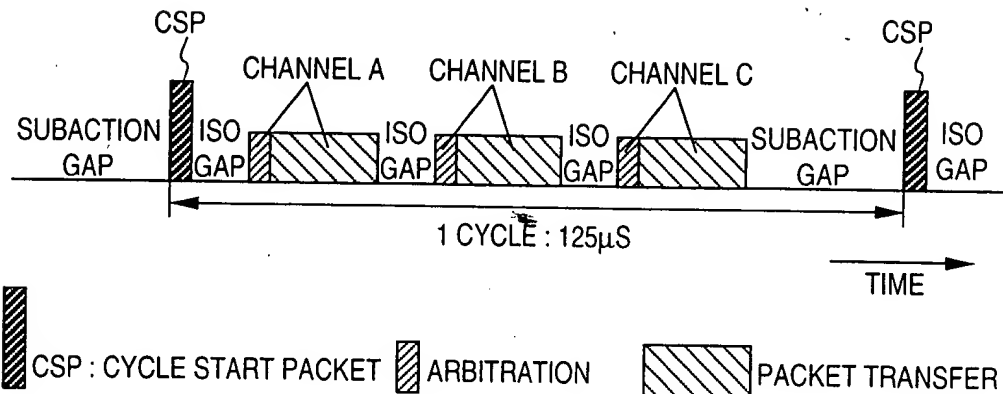


FIG. 14



ISO GAP : ISOCRONOUS GAP

FIG. 15A

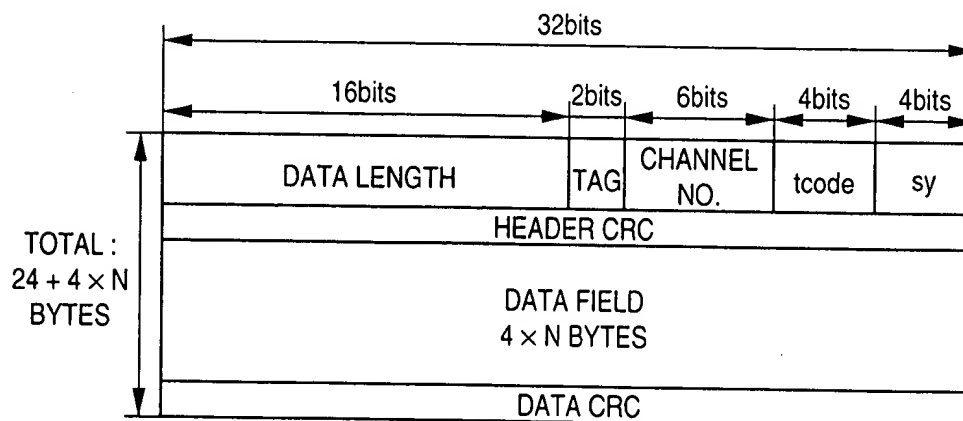


FIG. 15B

ABBREVIATION	NAME	CONTENT
destination_ID	destination identifier	ID OF DESTINATION NODE (ASYNCHRONOUS ONLY)
t1	transaction label	LABEL INDICATING A SERIES OF TRANSACTIONS (ASYNCHRONOUS ONLY)
rt	retry code	CODE INDICATING RETRANSMISSION STATUS (ASYNCHRONOUS ONLY)
tcode	transaction code	CODE INDICATING PACKET TYPE (ASYNCHRONOUS ONLY)
pri	priority	PRIORITY ORDER (ASYNCHRONOUS ONLY)
source_ID	source identifier	SOURCE NODE (ASYNCHRONOUS ONLY)
destination_ offset	destination memory address	MEMORY ADDRESS OF DESTINATION NODE (ASYNCHRONOUS ONLY)
rcode	response code	RESPONSE STATUS (ASYNCHRONOUS ONLY)
quadiet_data	quadiet(4bytes) data	4-BYTE LENGTH DATA (ASYNCHRONOUS ONLY)
data_length	length of data	LENGTH OF data_field (EXCEPT pad bytes)
extended_tcode	extended transaction code	EXTENDED TRANSACTION CODE (ASYNCHRONOUS ONLY)
chanel	isochronous identifier	IDENTIFICATION OF ISOCHRONOUS PACKET
sy	synchronization code	SYNCHRONIZATION OF VIDEO IMAGE AND AUDIO INFORMATION
cycle_time_data	contents of the CYCLE_TIME register	CYCLE TIMER REGISTER VALUE OF CYCLE MASTER NODE (CYCLE PACKET ONLY)
data_field	data + pad bytes	DATA STORAGE (ISOCHRONOUS AND ASYNCHRONOUS)
header_CRC	CRC for header field	CRC FOR HEADER
data_CRC	CRC for data field	CRC FOR DATA
tag	tag label	ISOCHRONOUS PACKET FORMAT

FIG. 16

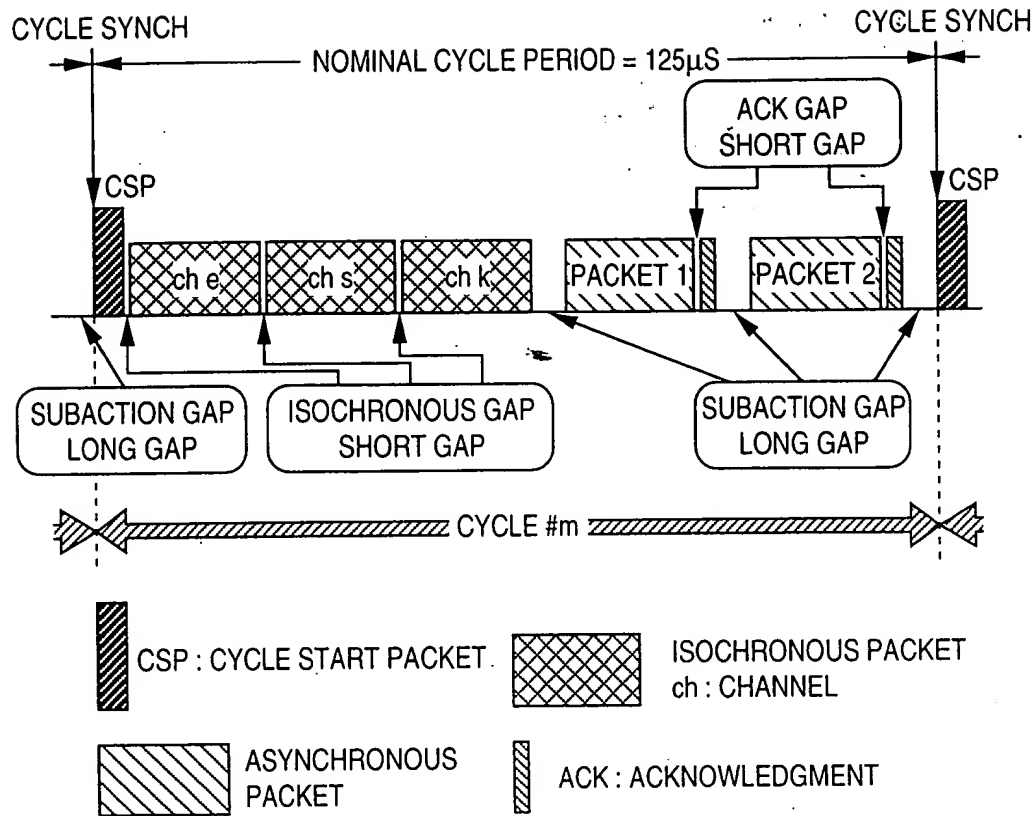


FIG. 17

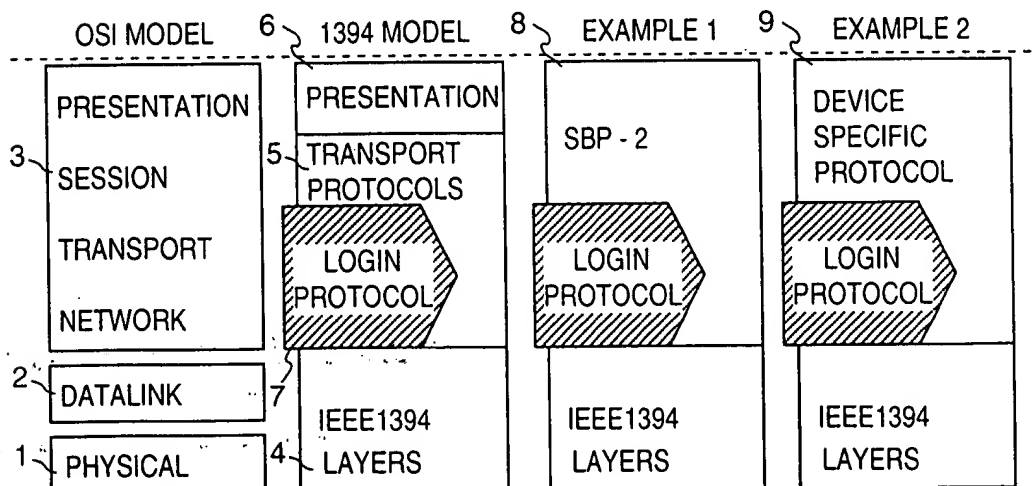


FIG. 18

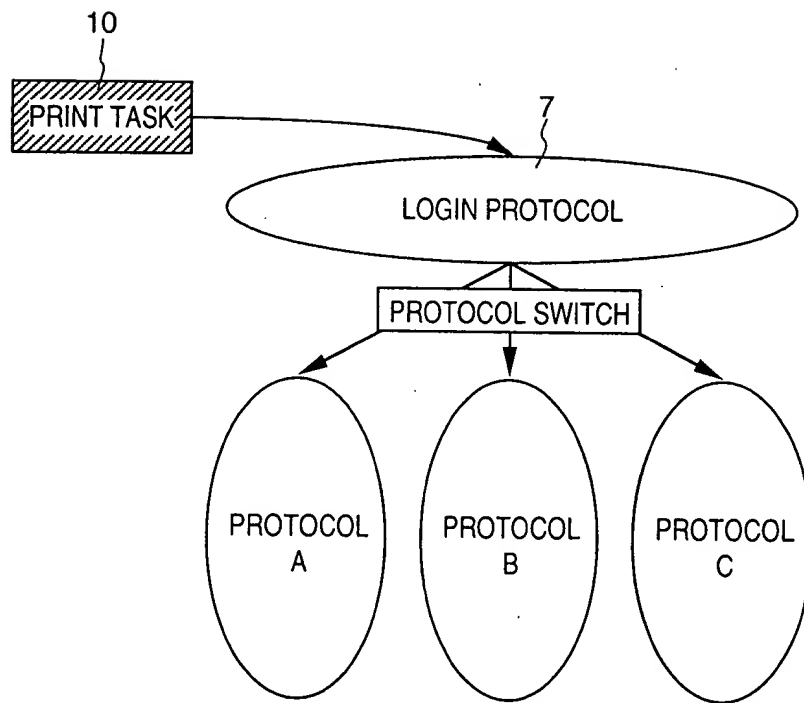


FIG. 19

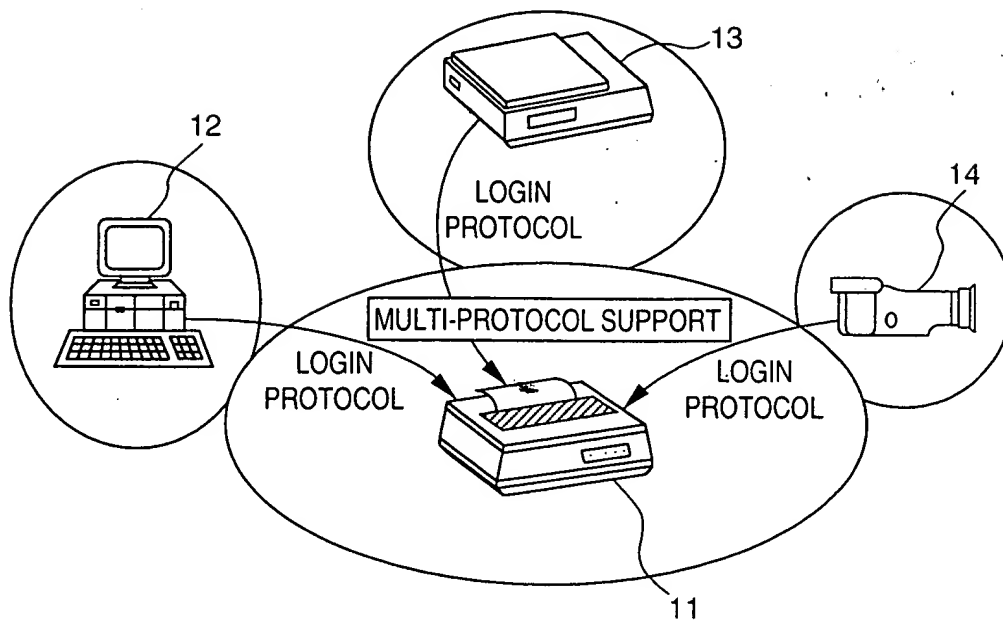


FIG. 20

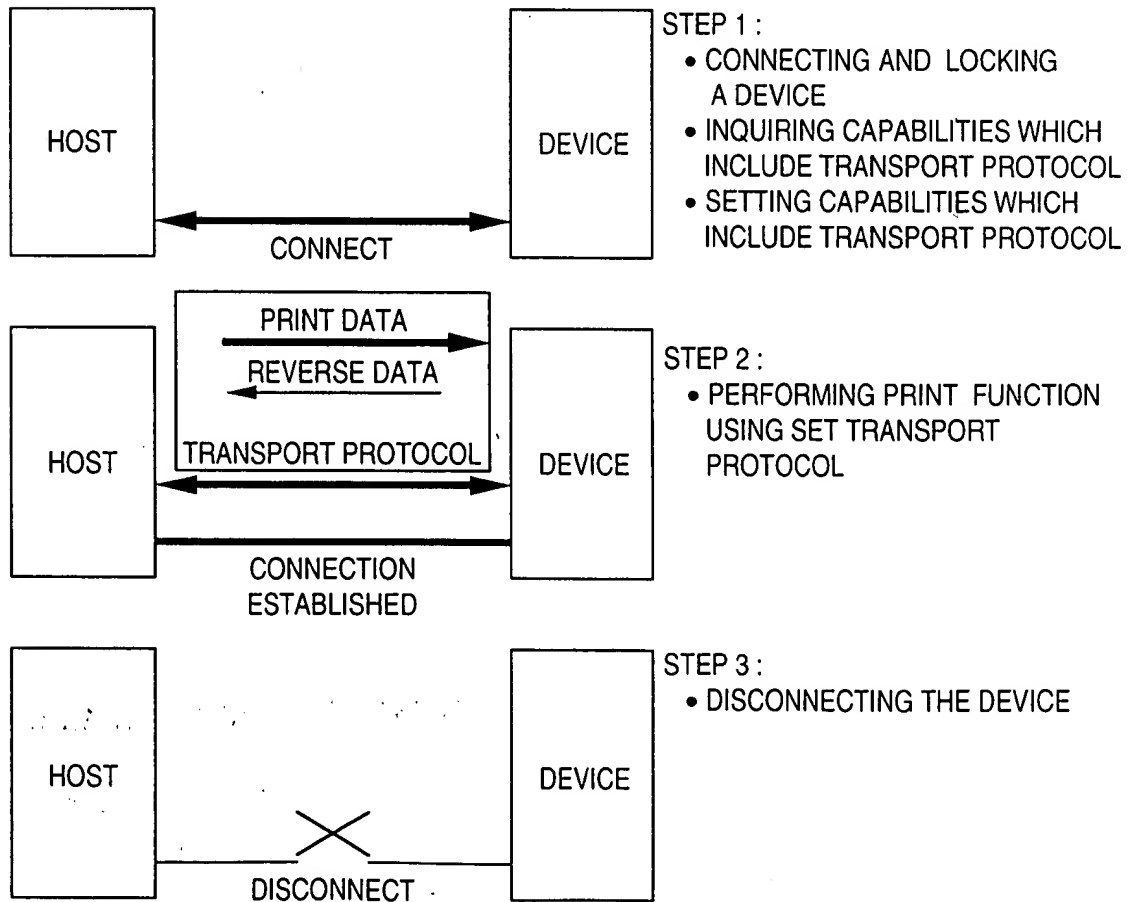




FIG. 21

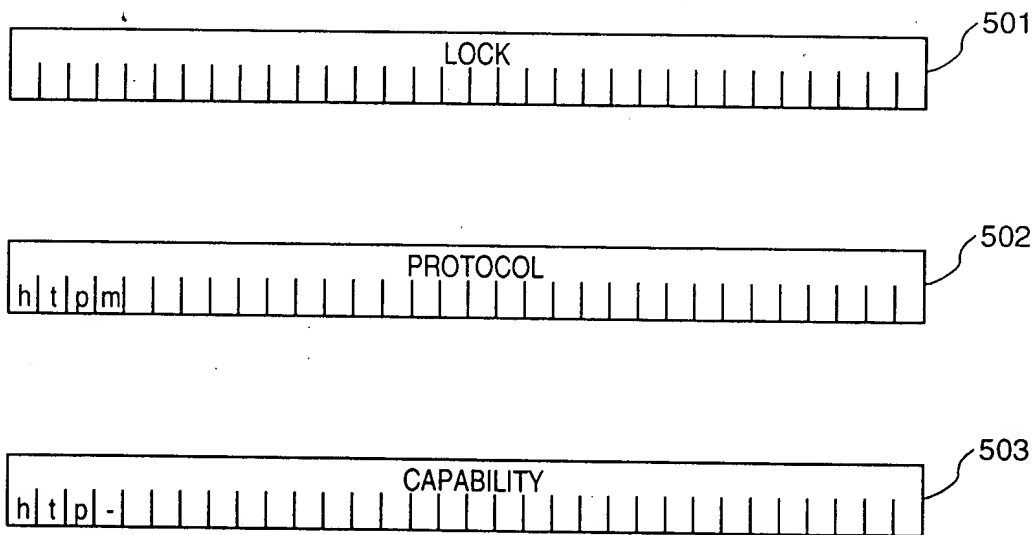


FIG. 22

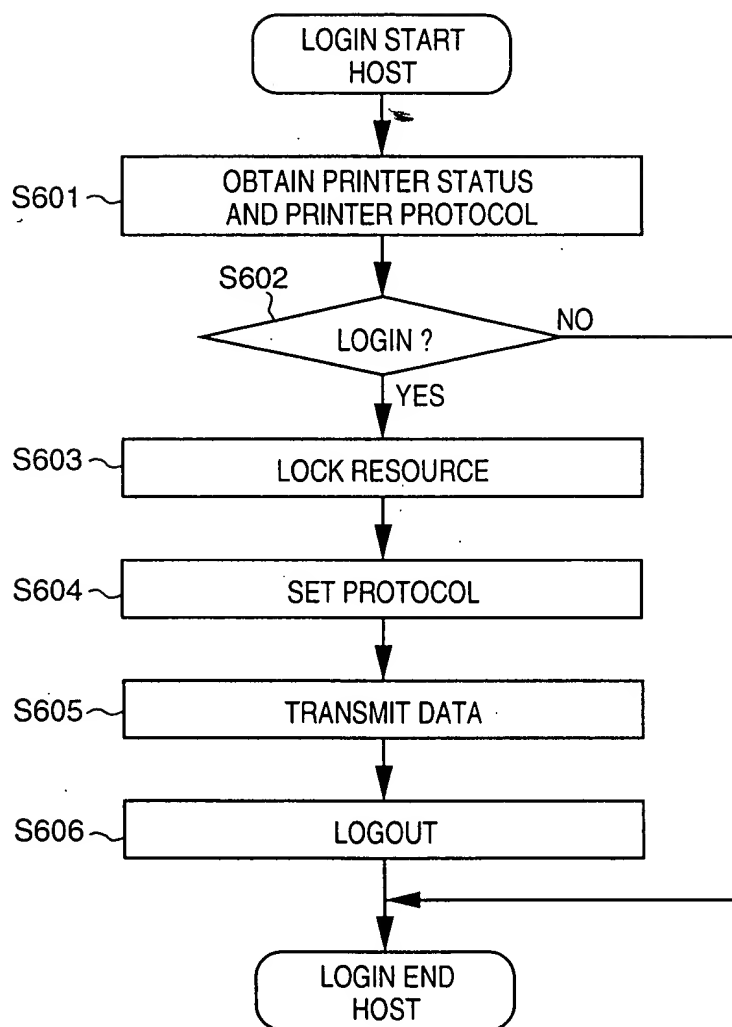


FIG. 23

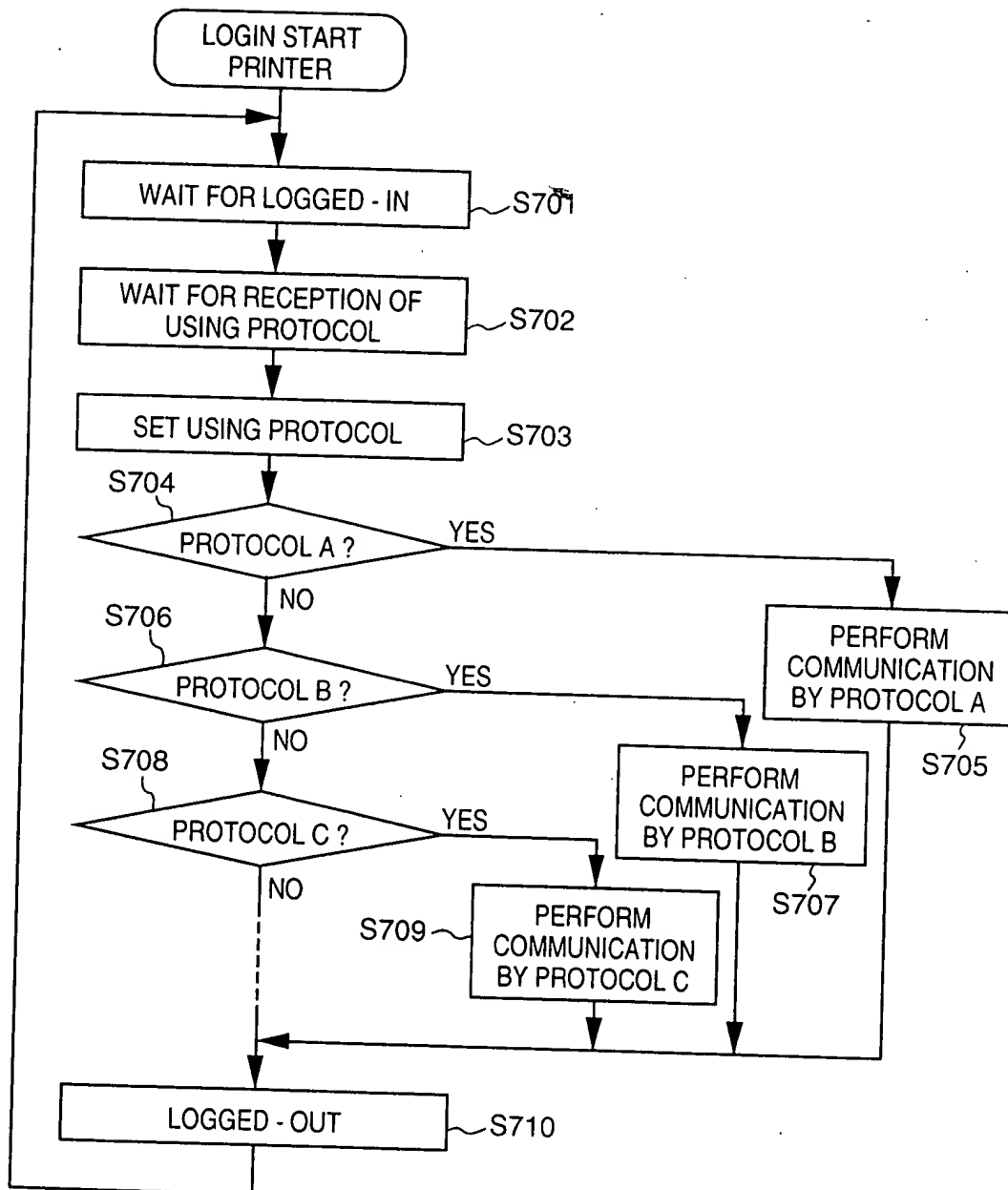


FIG. 24

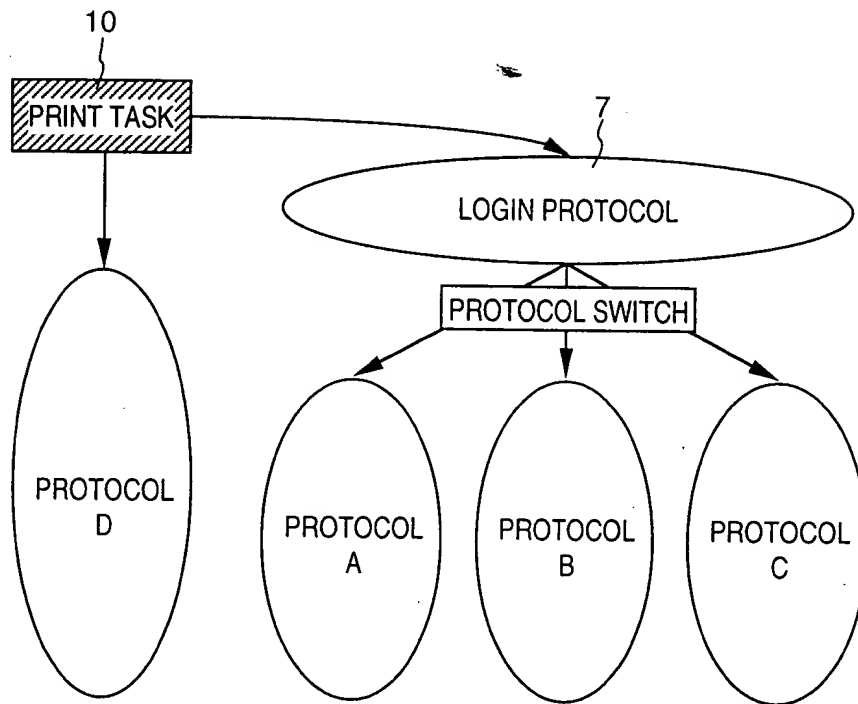
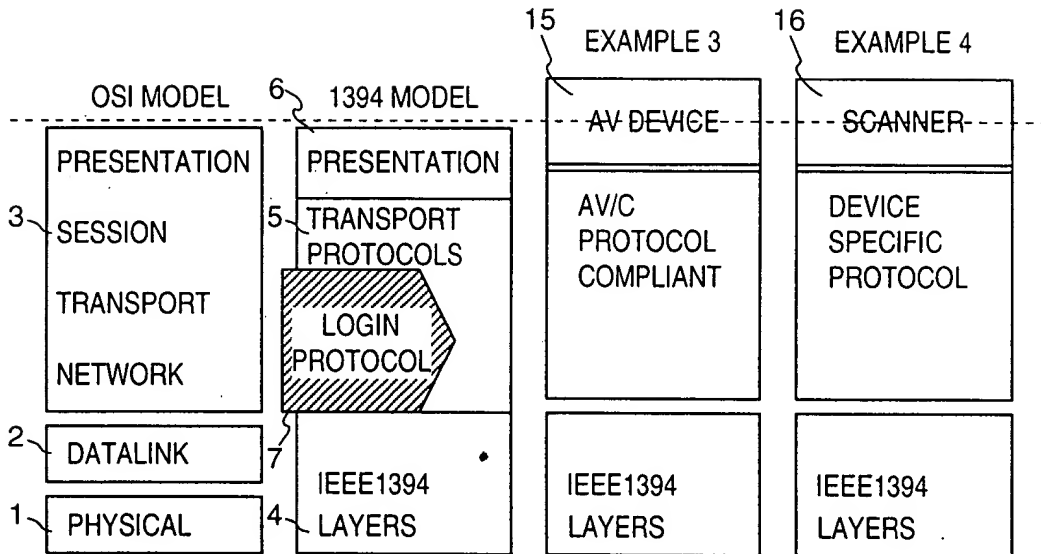


FIG. 25



**FIG. 26A**  
CSR CORE REGISTER

OFFSET (hexadecimal)	REGISTER NAME	FUNCTION
000	STATE_CLEAR	INFORMATION ON STATUS AND CONTROL
004	STATE_SET	INFORMATION ON WRITE ENABLE/DISABLE STATUS OF STATE_CLEAR
008	NODE_IDS	BUS ID + NODE ID
00C	RESET_START	TO RESET BUS BY WRITING INTO THIS AREA
010~014	INDIRECT_ADDRESS, INDIRECT_DATA	REGISTER TO ACCESS ROM AREA GREATER THAN 1KB
018~01C	SPLIT_TIMEOUT	TIMER VALUE TO DETECT TIME-OUT OF SPLIT TRANSACTION
020~02C	ARGUMENT, TEST_START, TEST_STATUS	REGISTER FOR DIAGNOSIS
030~04C	UNITS_BASE, UNITS_BOUND, MEMORY_BASE, MEMORY_BOUND	NOT INSTALLED IN IEEE 1394
050~054	INTERRUPT_TARGET, INTERRUPT_MASK	REGISTER OF INTERRUPTION NOTIFICATION
058~07C	CLOCK_VALUE, CLOCK_TICK_PERIOD, CLOCK_STORBE_ARRIVED, CLOCK_INFO	NOT INSTALLED IN IEEE 1394
080~0FC	MESSAGE_REQUEST, MESSAGE_RESPONSE	REGISTER FOR MESSAGE NOTIFICATION
100~17C		RESERVATION
180~1FC	ERROR_LOG_BUFFER	TO RESERVE FOR IEEE 1394

FIG. 26B

OFFSET (hexadecimal)	REGISTER NAME	FUNCTION
200	CYCLE_TIME	COUNTER FOR ISOCRONOUS TRANSFER
204	BUS_TIME	REGISTER FOR TIME SYNCHRONIZATION
208	POWER_FAIL_IMMINENT	REGISTER RELATING TO POWER SUPPLY
20C	POWER_SOURCE	
210	BUSY_TIMEOUT	TO CONTROL RETRY IN TRANSACTION LAYER
214~218		RESERVATION
21C	BUS_MANAGER_ID	NODE ID OF BUS MANAGER
220	BANDWIDTH_AVAILABLE	TO MANAGE ISOCRONOUS TRANSFER BAND
224~228	CHANNELS_AVAILABLE	TO MANAGE CHANNEL NUMBER FOR ISOCRONOUS TRANSFER
22C	MAINT_CONTROL	REGISTER FOR DIAGNOSIS
230	MAINT_UTILITY	
234~3FC		RESERVATION

**FIG. 26C**  
SERIAL-BUS NODE RESOURCE REGISTER

OFFSET (hexadecimal)	REGISTER NAME	FUNCTION
800~FFC		RESERVATION
1000~13FC	TOPOLOGY-MAP	INFORMATION ON SERIAL BUS STRUCTURE
1400~1FFC		RESERVATION
2000~2FFC	SPEED-MAP	INFORMATION ON TRANSFER SPEED OF SERIAL BUS
3000~FFFC		RESERVATION

**FIG. 26D**  
MINIMUM FORMAT CONFIGURATION ROM

01	VENDOR ID
----	-----------

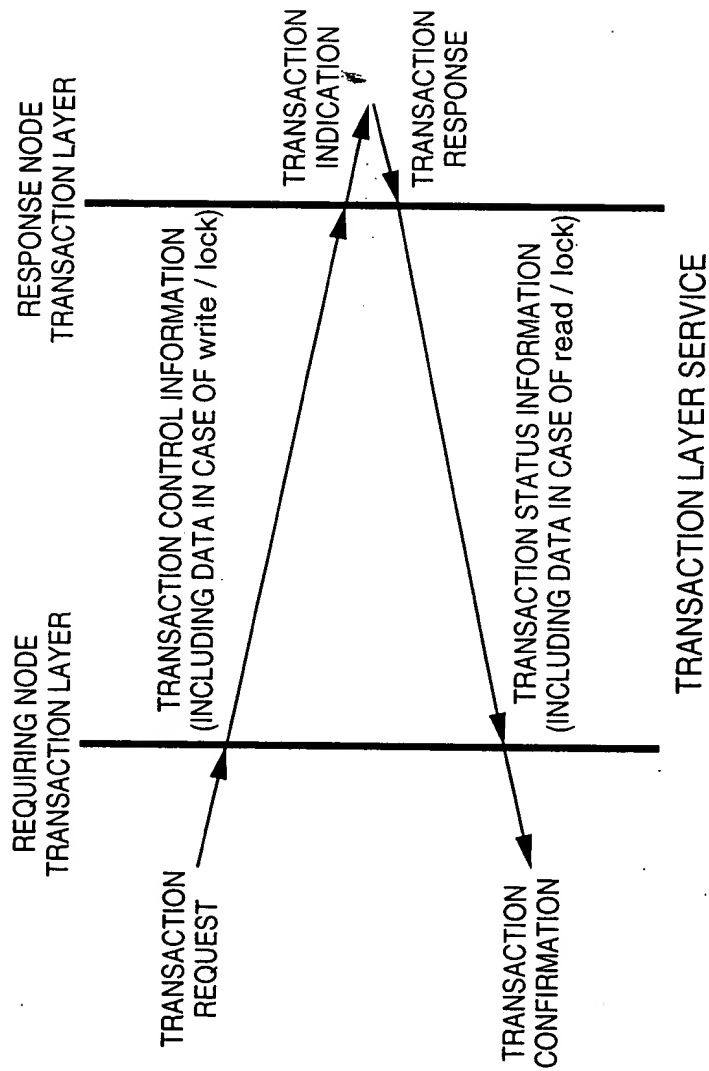


FIG. 26E

## GENERAL FORMAT CONFIGURATION ROM

LENGTH OF bus_info_block	LENGTH OF ROM	CRC
bus_info_block (ASCII CODE OF 1394 BUS AND INFORMATION ON WHETHER OR NOT NODE HAS CAPABILITIES OF ISOCHRONOUS RESOURCE MANAGEMENT, CYCLE MASTER, AND BUS MANAGEMENT)		
root_directory (INDICATE VENDOR ID AND NODE FUNCTION)		
unit_directories (INDICATE UNIT TYPE AND DRIVER SOFT VERSION)		
root & unit_leaves		
vendor_dependent_information		

FIG. 27A



01. FIG. 1

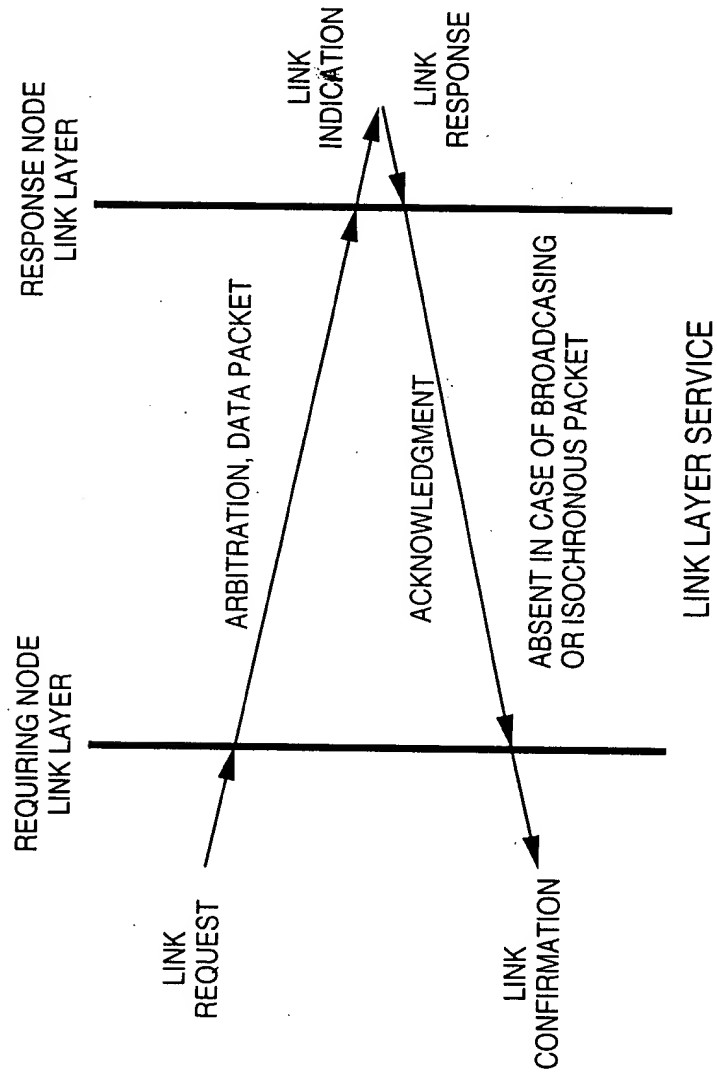


FIG. 28A

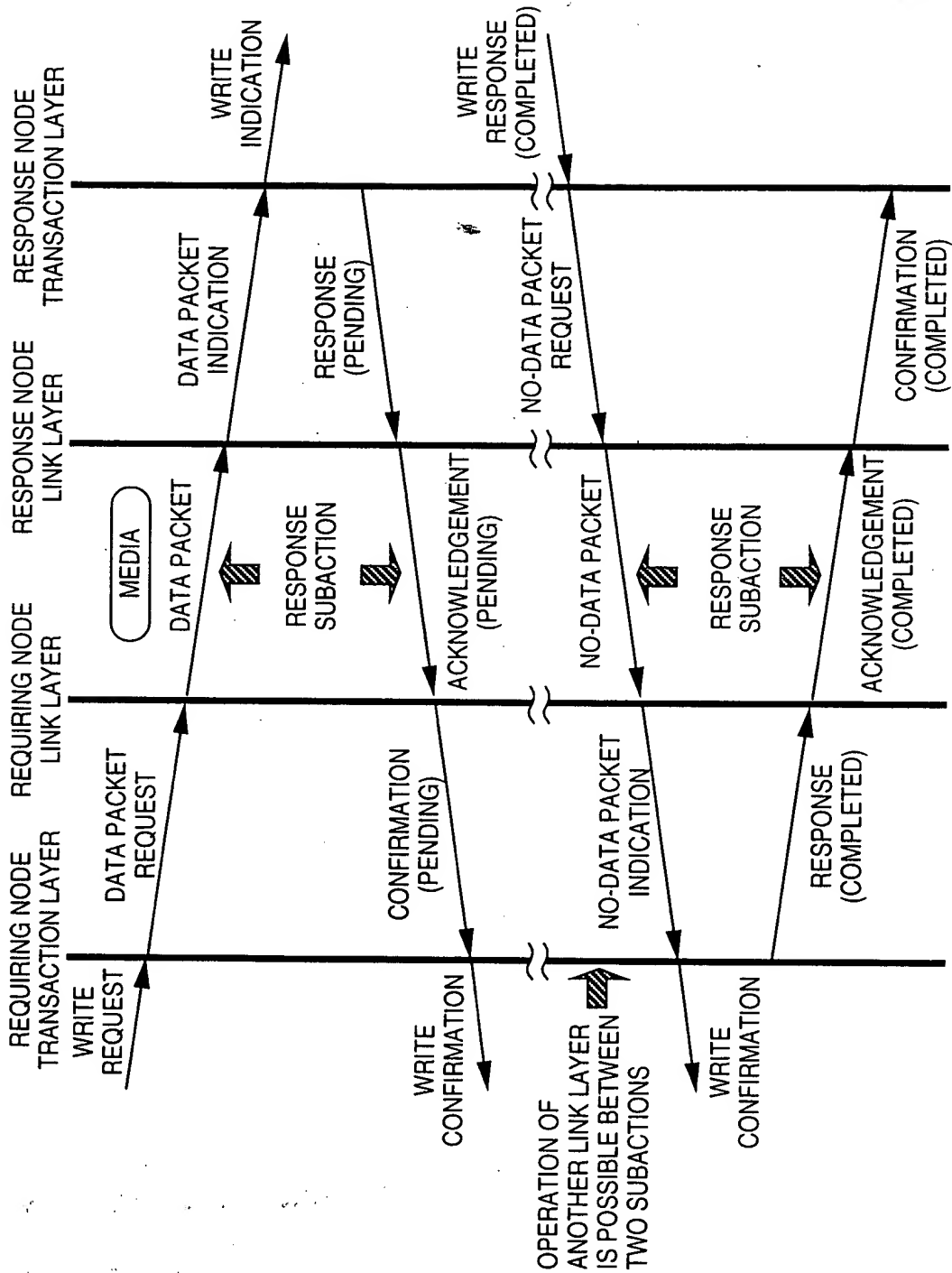


FIG. 28B

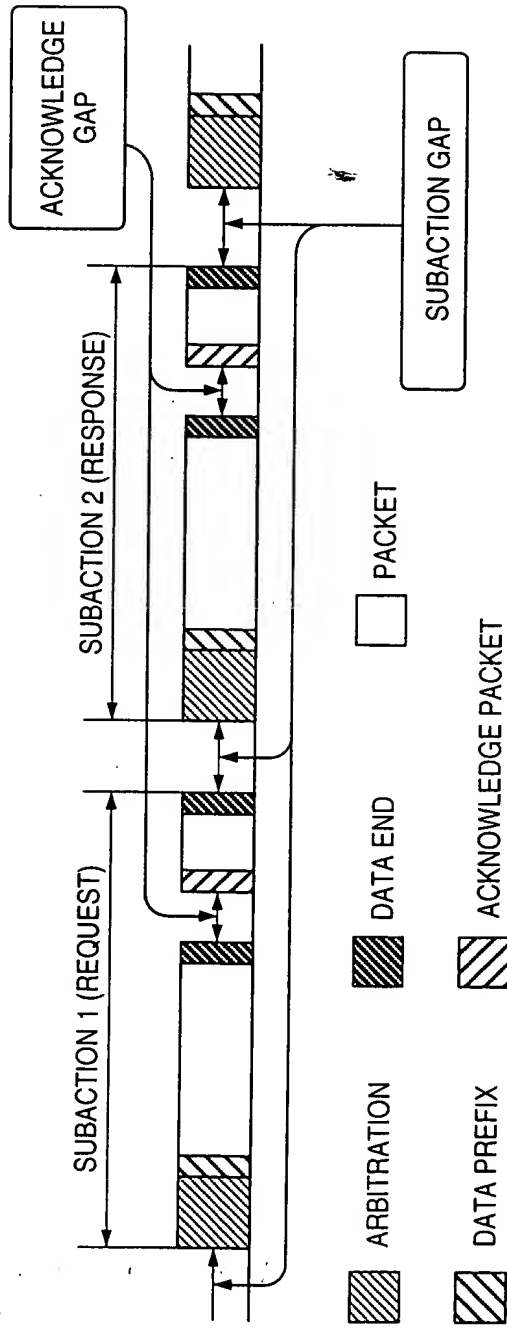


FIG. 29

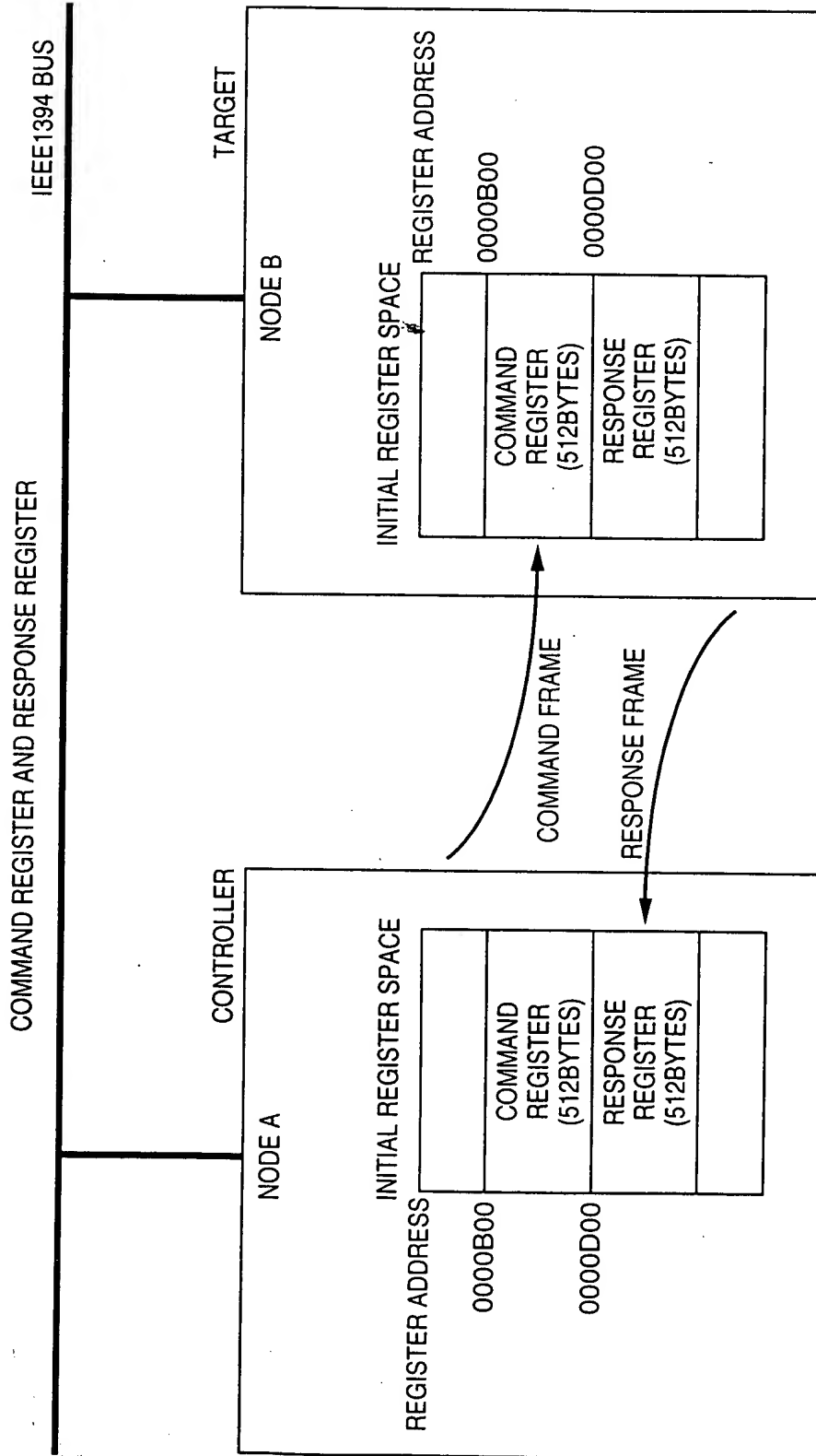


FIG. 30

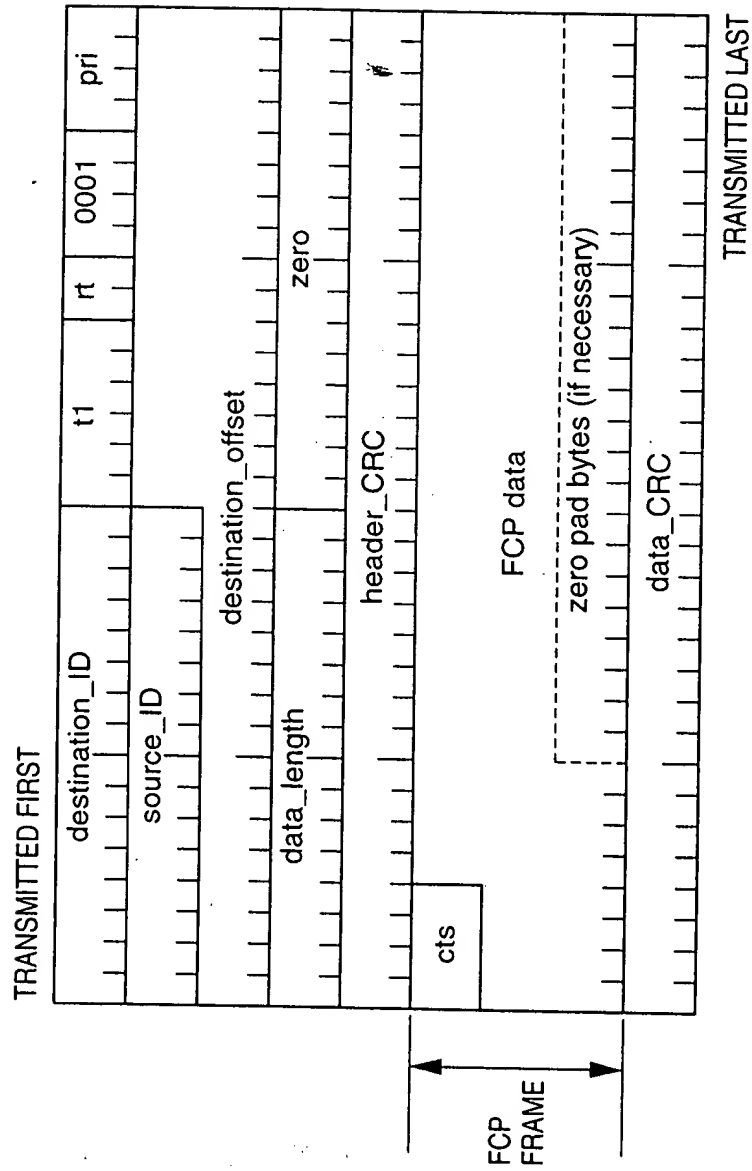


FIG. 31

AV/C COMMAND FRAME

TRANSMITTED FIRST

0000	ctype	subunit_type	subunit_ID	opcode	operand [0]
operand [1]	operand [2]	operand [3]	operand [4]		
...					
operand [n]	zero pad bytes (if necessary)				

TRANSMITTED LAST

FIG. 32

AV/C RESPONSE FRAME

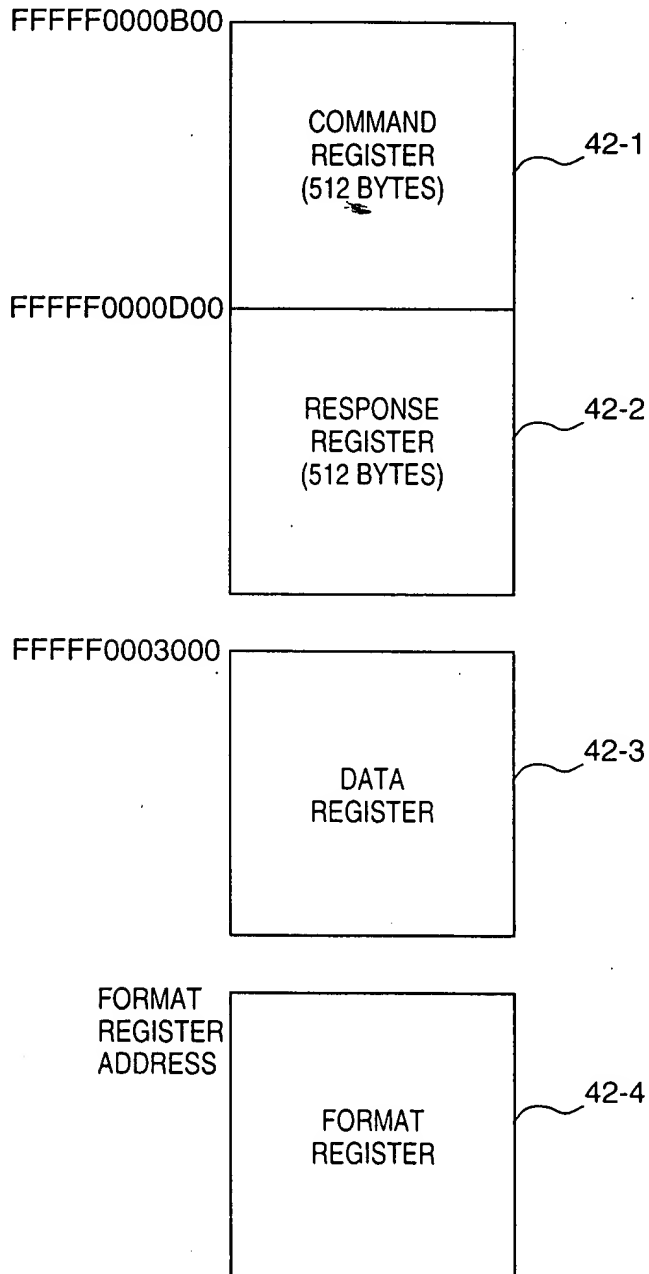
TRANSMITTED FIRST

0000	response	subunit_type	subunit_ID	opcode	operand [0]
operand [1]	operand [2]	operand [3]	operand [4]		
...					
operand [n]	zero pad bytes (if necessary)				

TRANSMITTED LAST

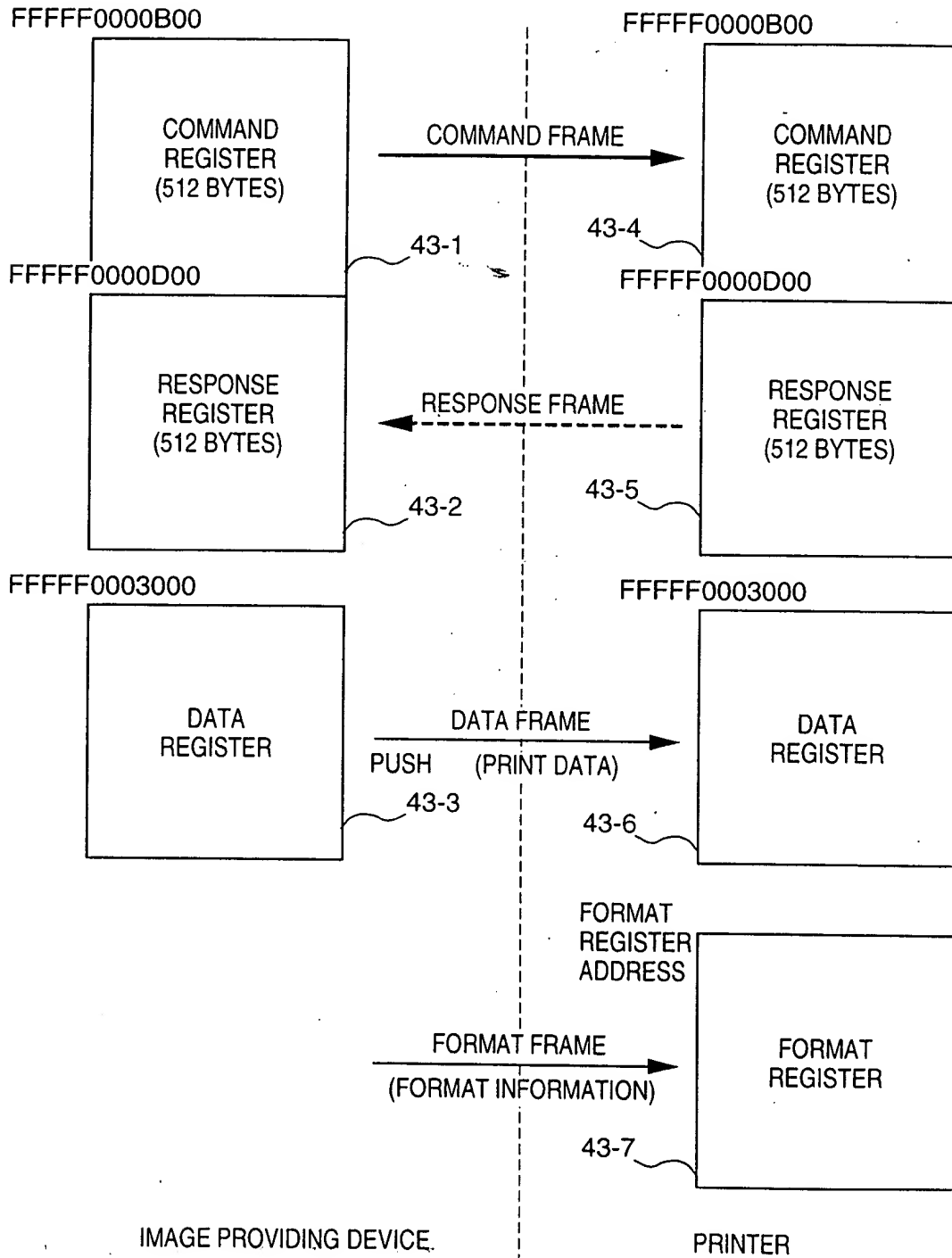


## FIG. 33



00000000-FFFFF000

FIG. 34



0005139-024799

FIG. 35

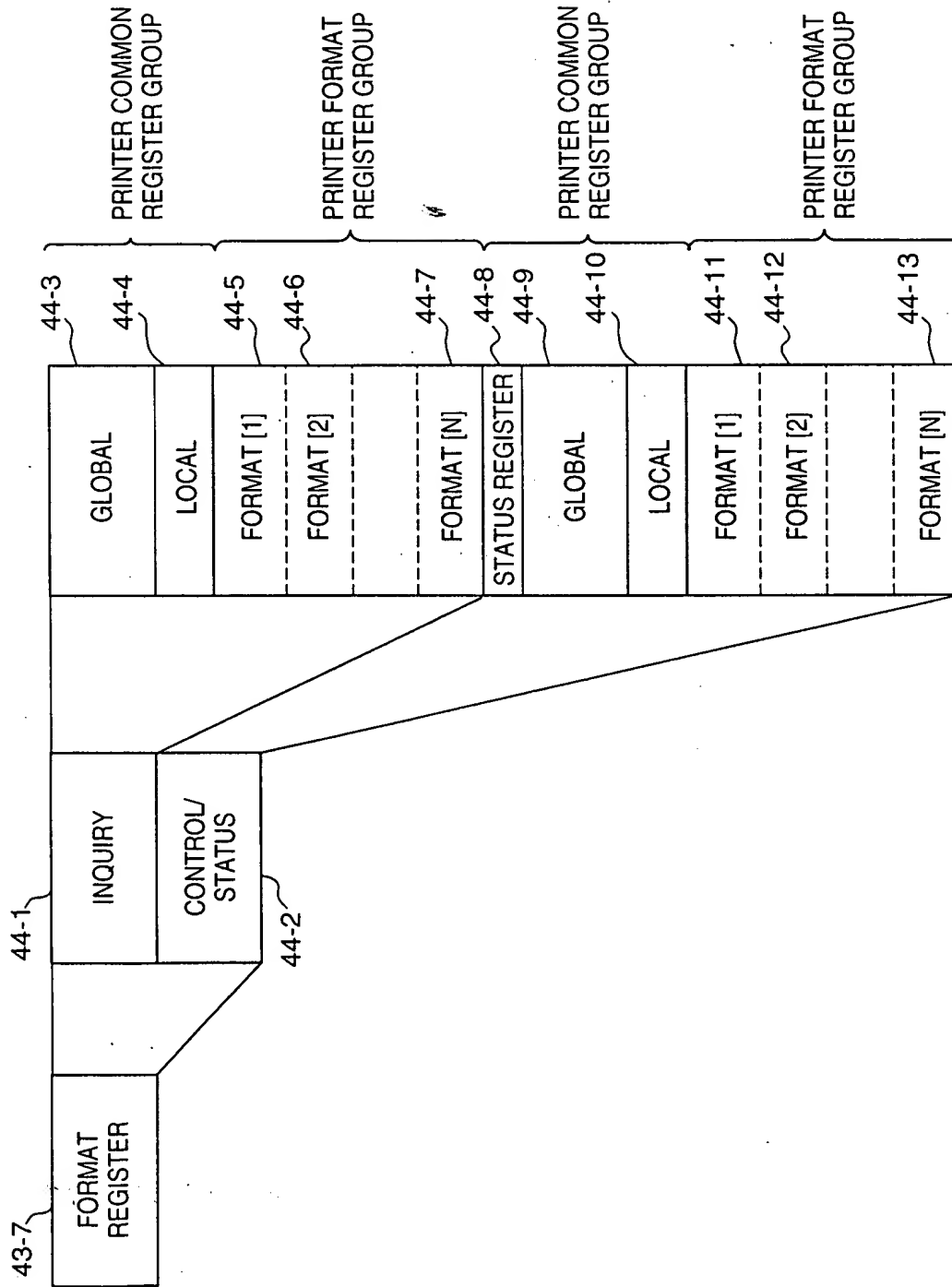


FIG. 36

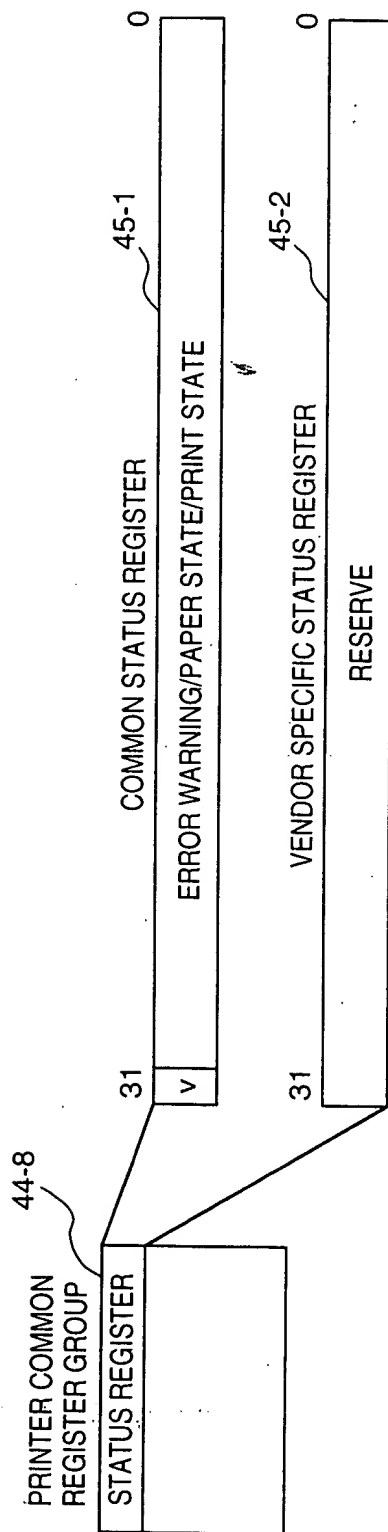


FIG. 37

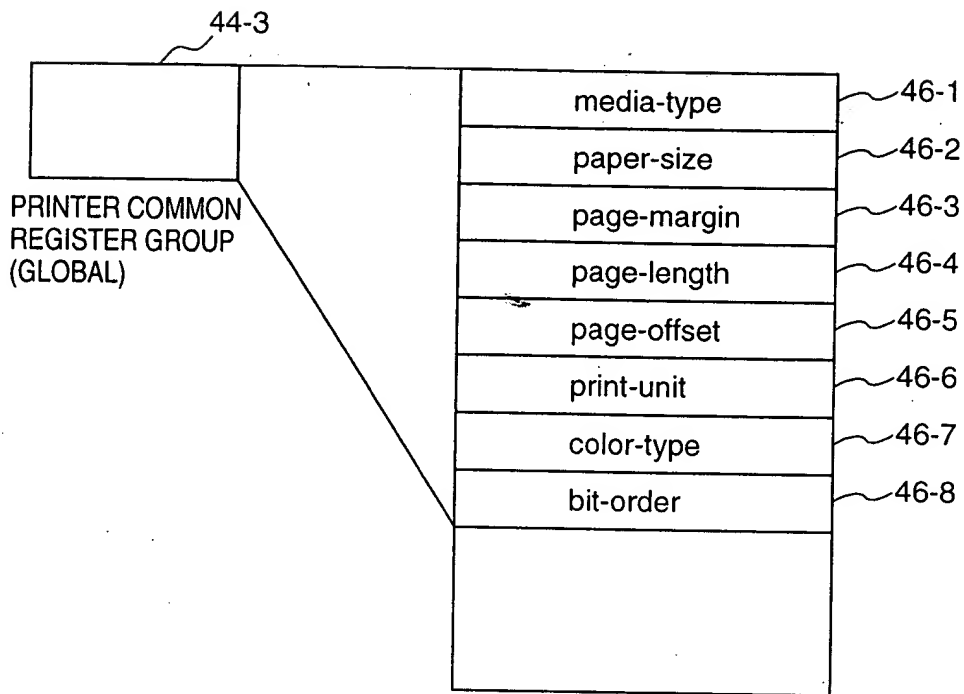
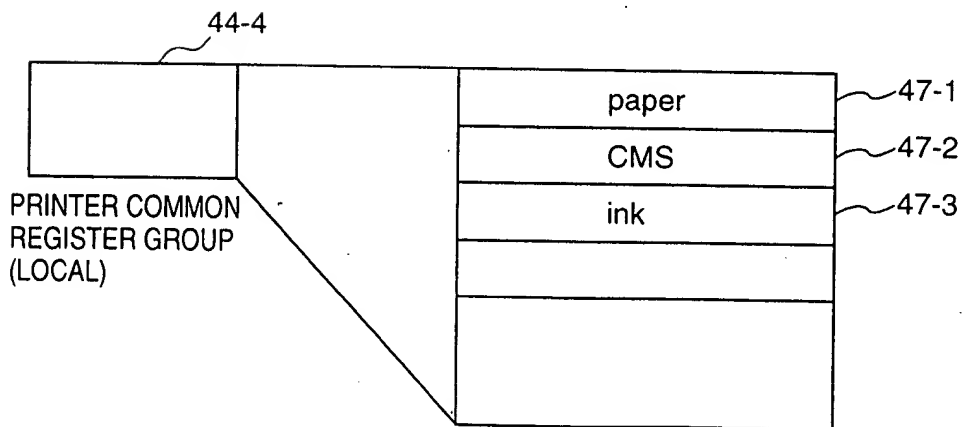
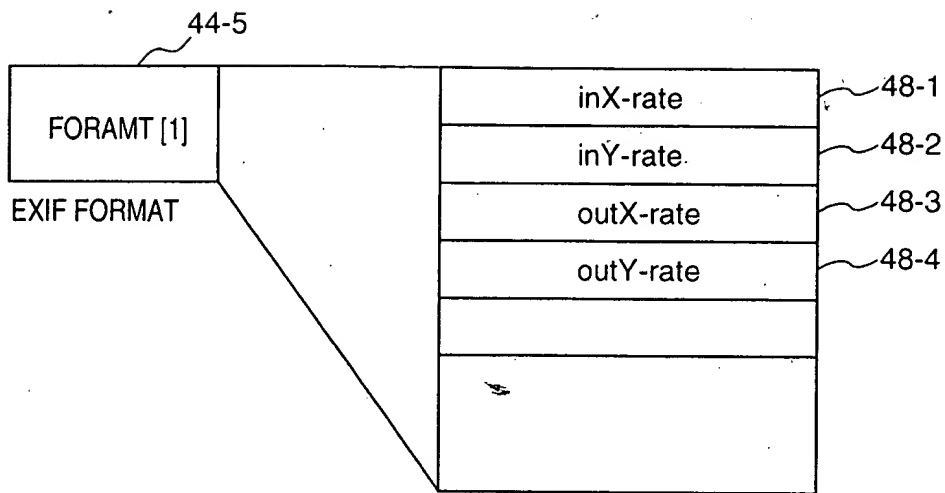
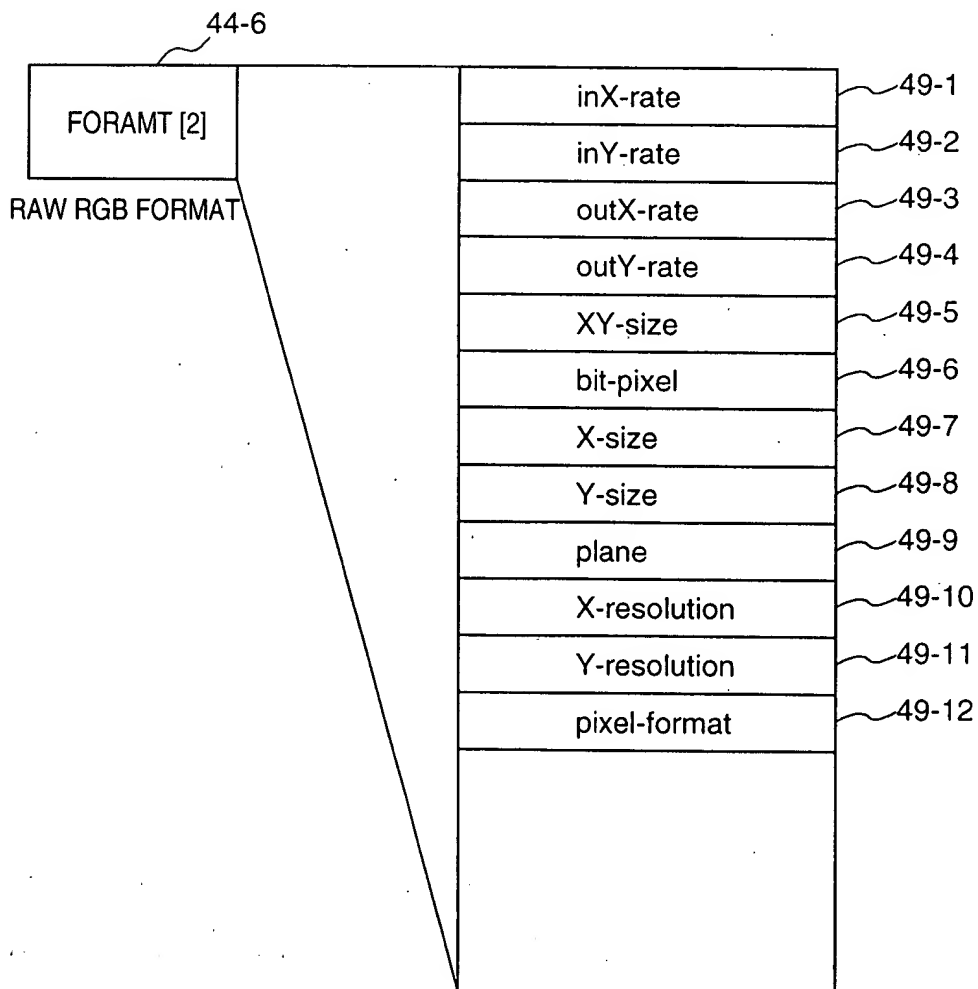


FIG. 38



**FIG. 39****FIG. 40**

# FIG. 41

COMMAND CLASSIFICATION	COMMAND	RESPONSE	
STATUS	GetStatus	GetStatusResponse	50-1
CONTROL	PrintReset	Print ResetResponse	50-2
	PrintStart	PrintStartResponse	50-3
	PrintStop	PrintStopResponse	50-4
	InsertPaper	InsertPaperResponse	50-5
	EjectPaper	EjectPaperResponse	50-6
	CopyStart	CopyStartResponse	50-7
	CopyEnd	CopyEndResponse	50-8
			50-9
BLOCK / BUFFER	BlockSize	BlockSizeResponse	50-10
	BlockAddress	BlockAddressResponse	50-11
	FreeBlock	FreeBlockResponse	50-12
	WriteBlocks	WriteBlocksResponse	50-13
	BufferConfig	BufferConfigResponse	50-14
	SetBuffer	SetBufferResponse	50-15
CHANNEL	OpenChannel	OpenChannelResponse	50-16
	CloseChannel	CloseChannelResponse	50-17
TRANSFER	TransferMethod	TransferMethodResponse	50-18
FORMAT	SetFormat	SetFormatResponse	50-19
LOG-IN	Login	LoginResponse	50-20
	Logout	LogoutResponse	50-21
	Reconnect	ReconnectResponse	50-22
DATA	WriteBlock		50-23
	WriteBuffer		50-24
	PullBuffer		

## FIG. 42

EXIF(TIFF, JPEG)	EXIF NON-COMPRESSED AND COMPRESSED DATA
TIFF/EP	TIFF EXTENDED VERSION
RGB	RGB RAW IMAGE
YUV	YUV RAW IMAGE
YCrCb	YCrCb RAW IMAGE
CMYK	CMYK RAW IMAGE
Vendor Specific	VENDOR DEFINITION



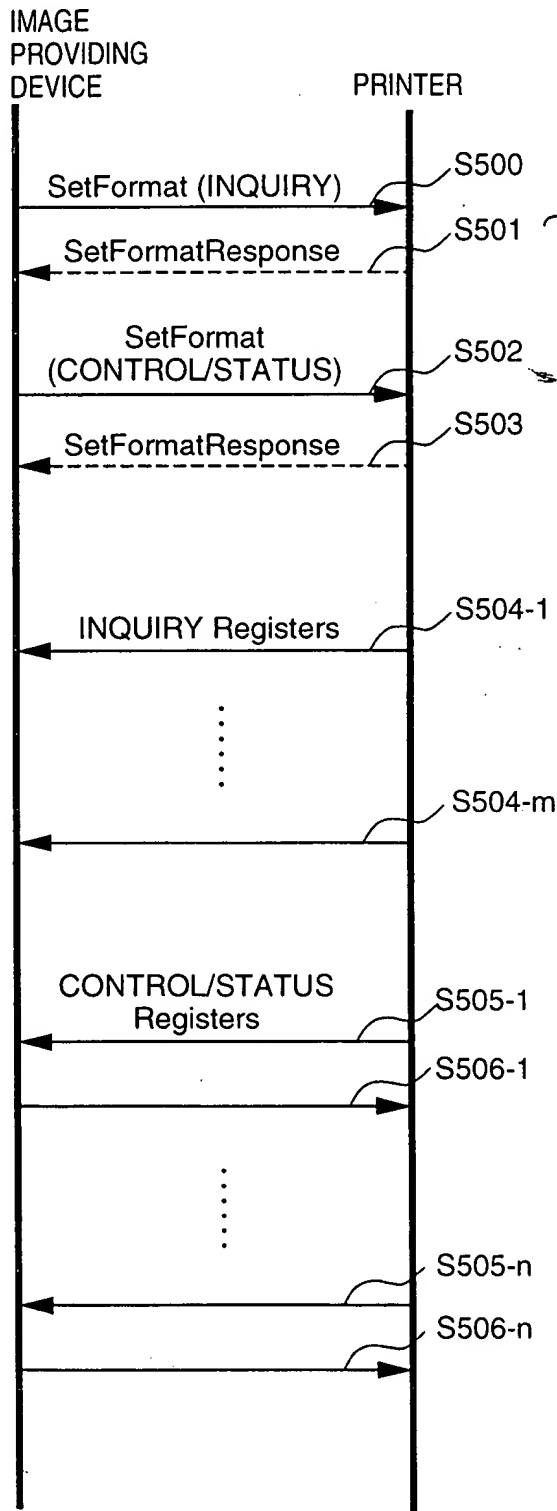
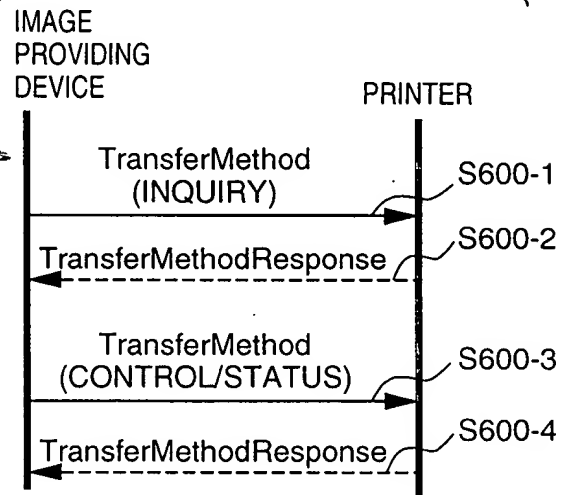
**FIG. 43****FIG. 44**

FIG. 45

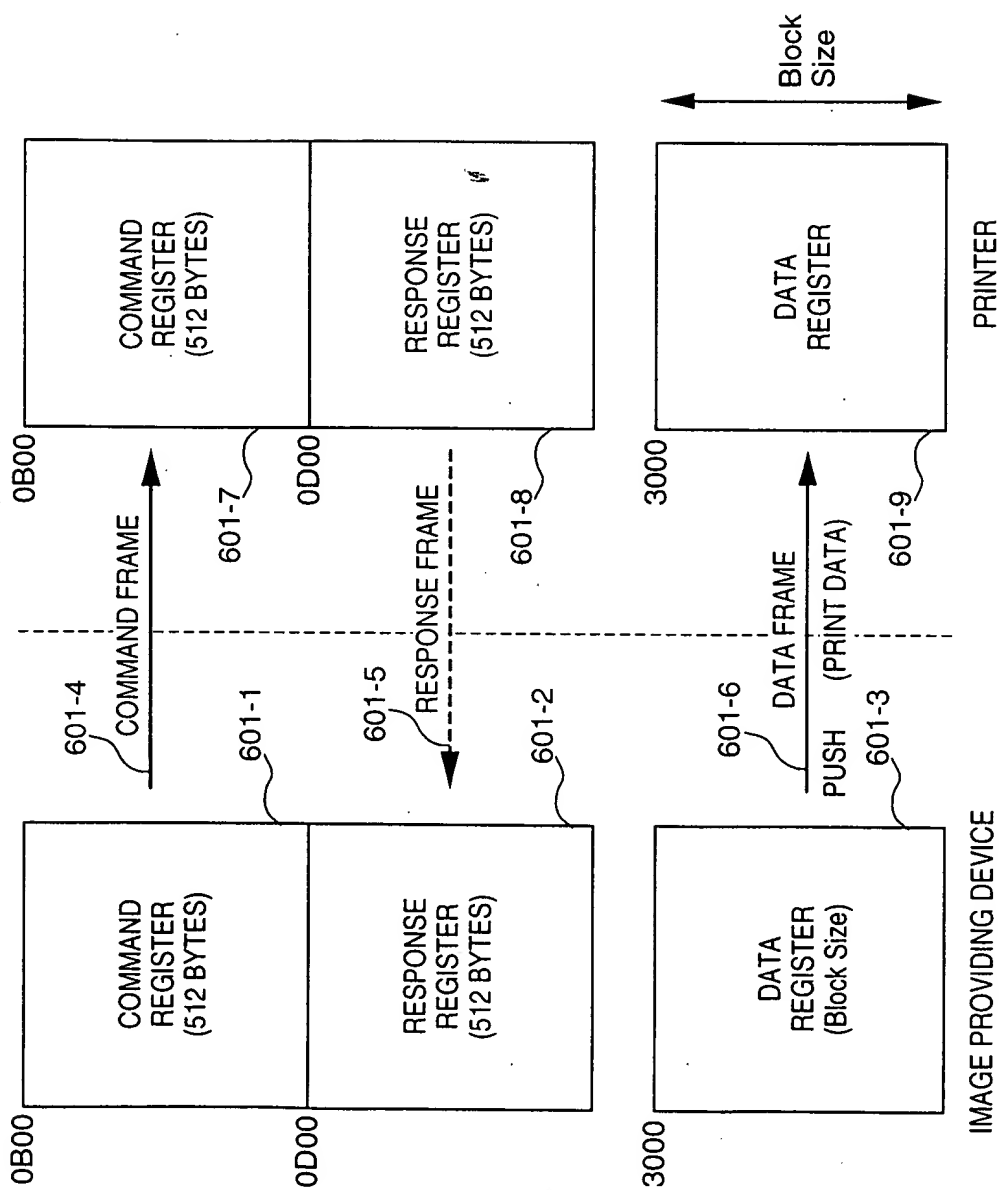


FIG. 46

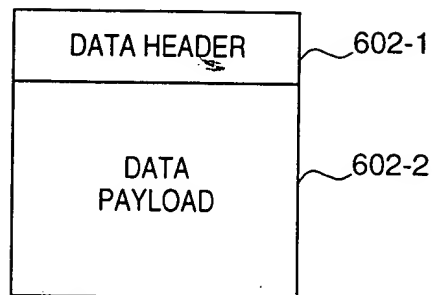


FIG. 47

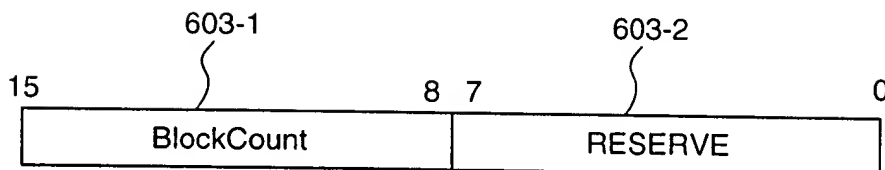




FIG. 49

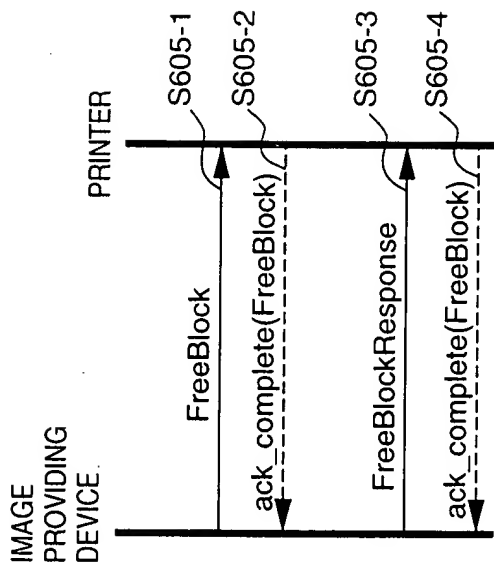


IMAGE  
PROVIDING  
DEVICE

PRINTER

FIG. 50

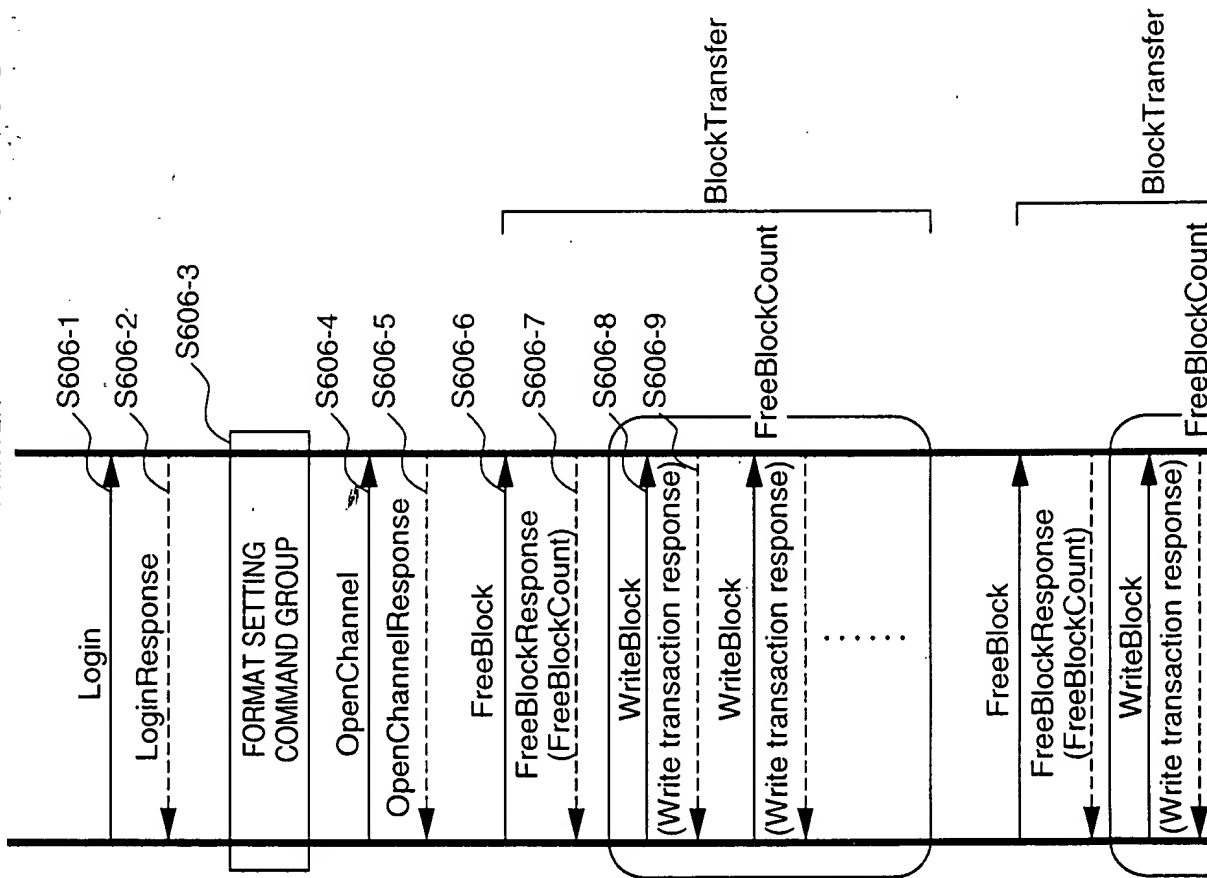
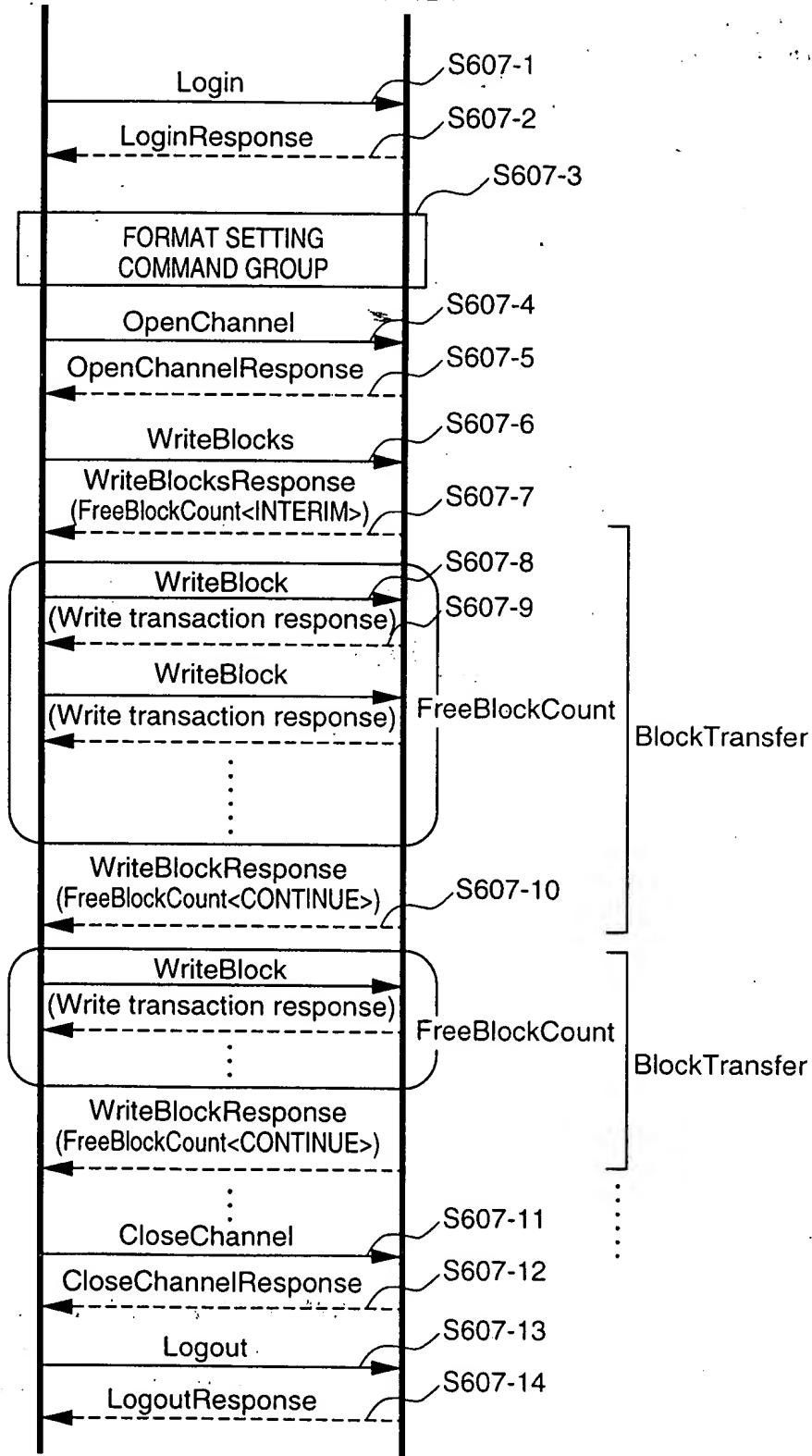


FIG. 51

IMAGE  
PROVIDING  
DEVICE

PRINTER



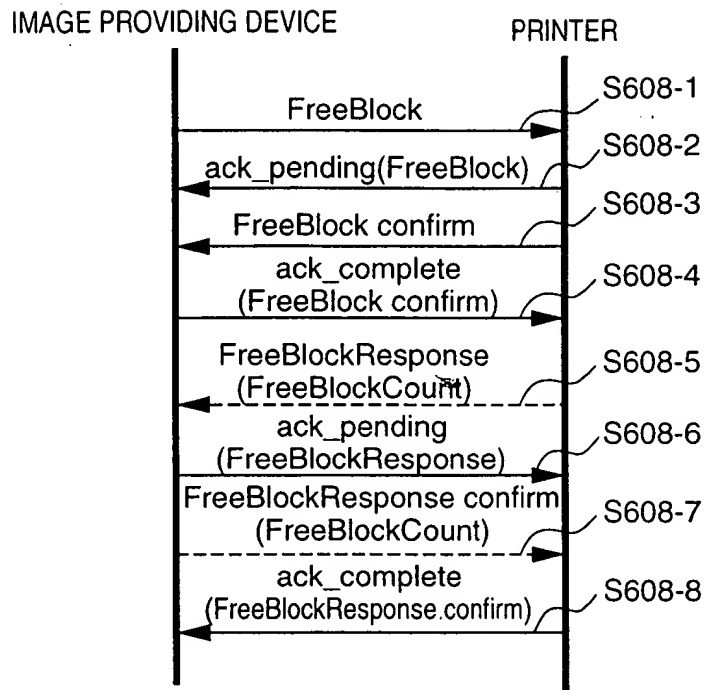
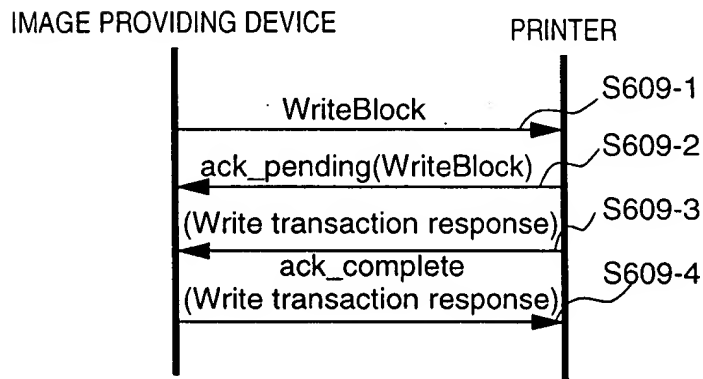
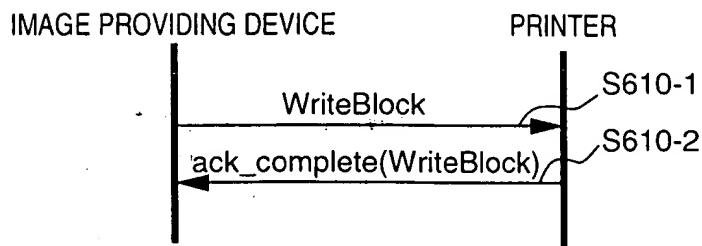
**FIG. 52****FIG. 53****FIG. 54**



FIG. 55

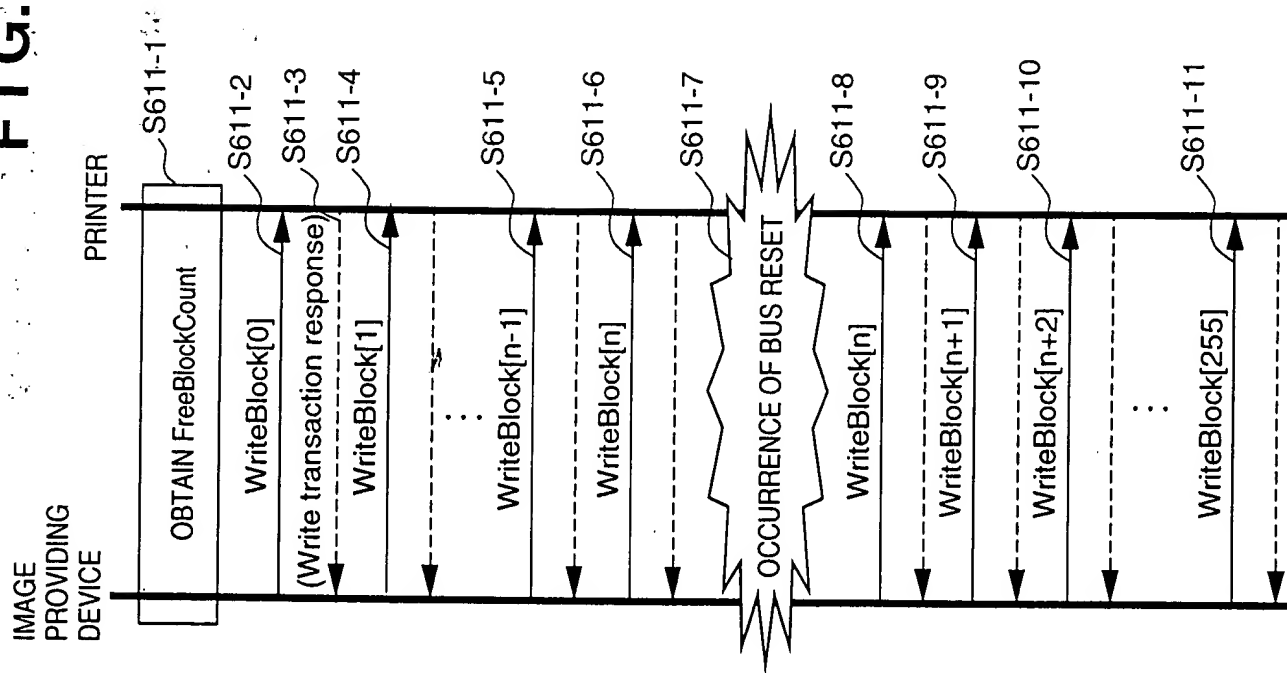


FIG. 56

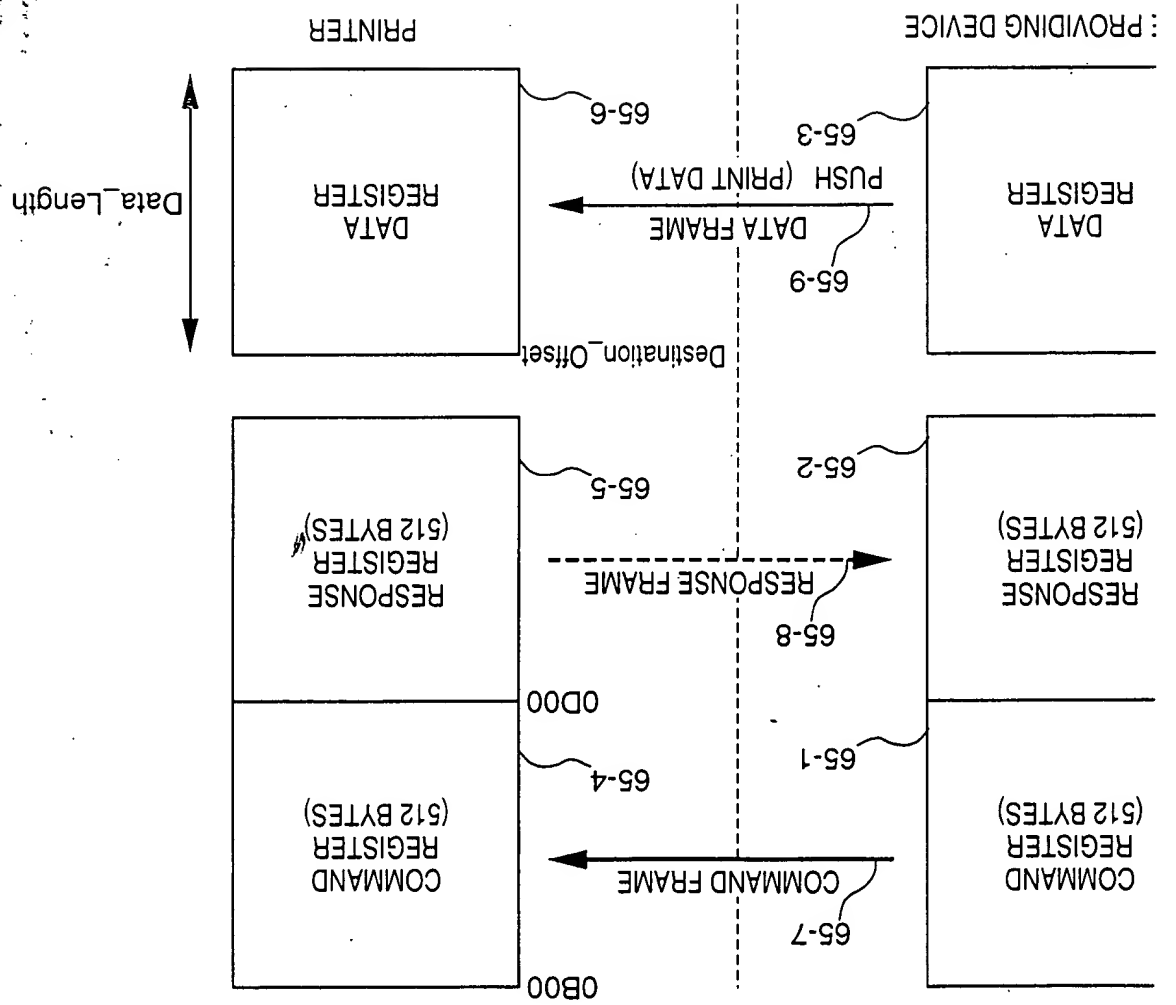


FIG. 57

IMAGE  
PROVIDING  
DEVICE

PRINTER

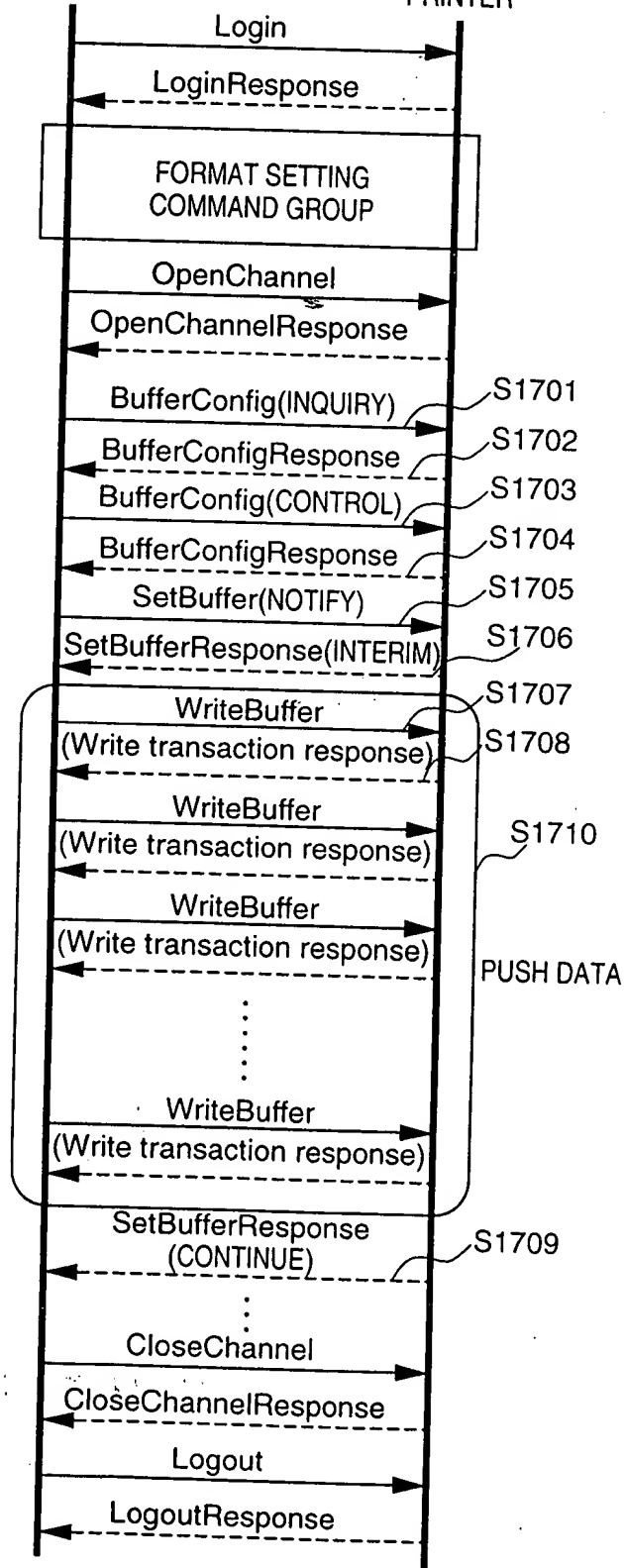


FIG. 58

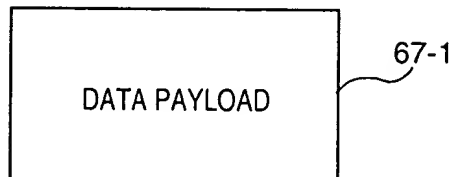


FIG. 59

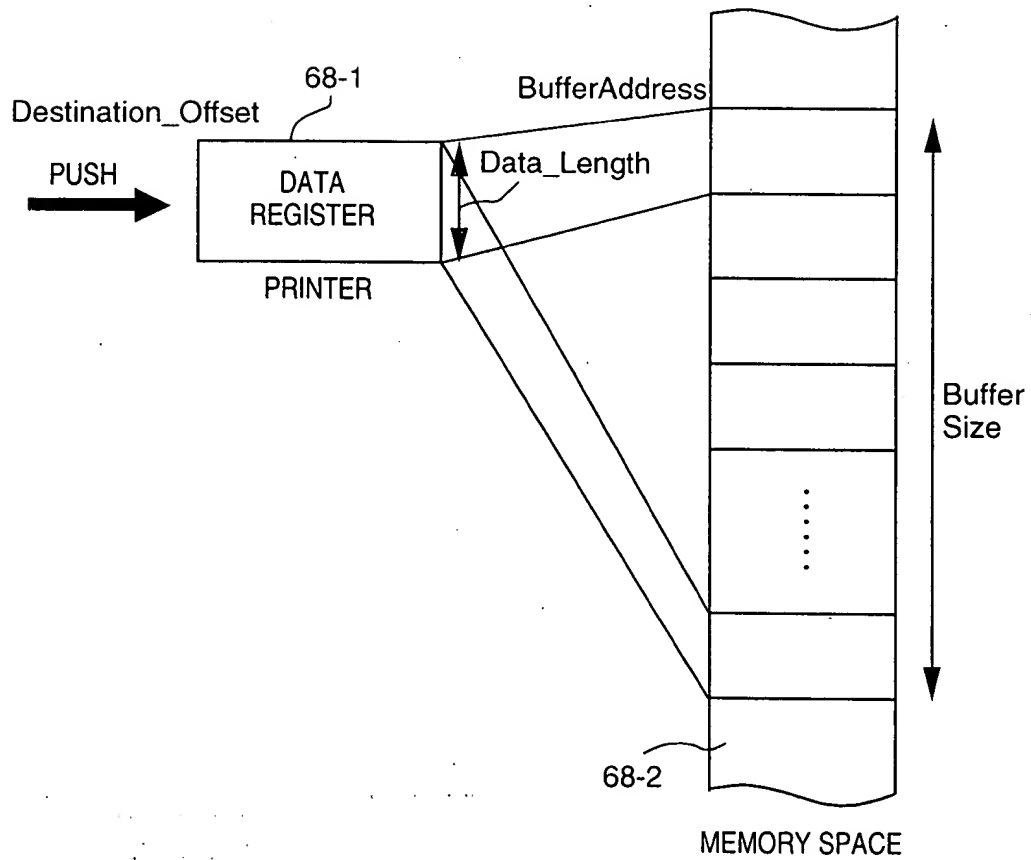
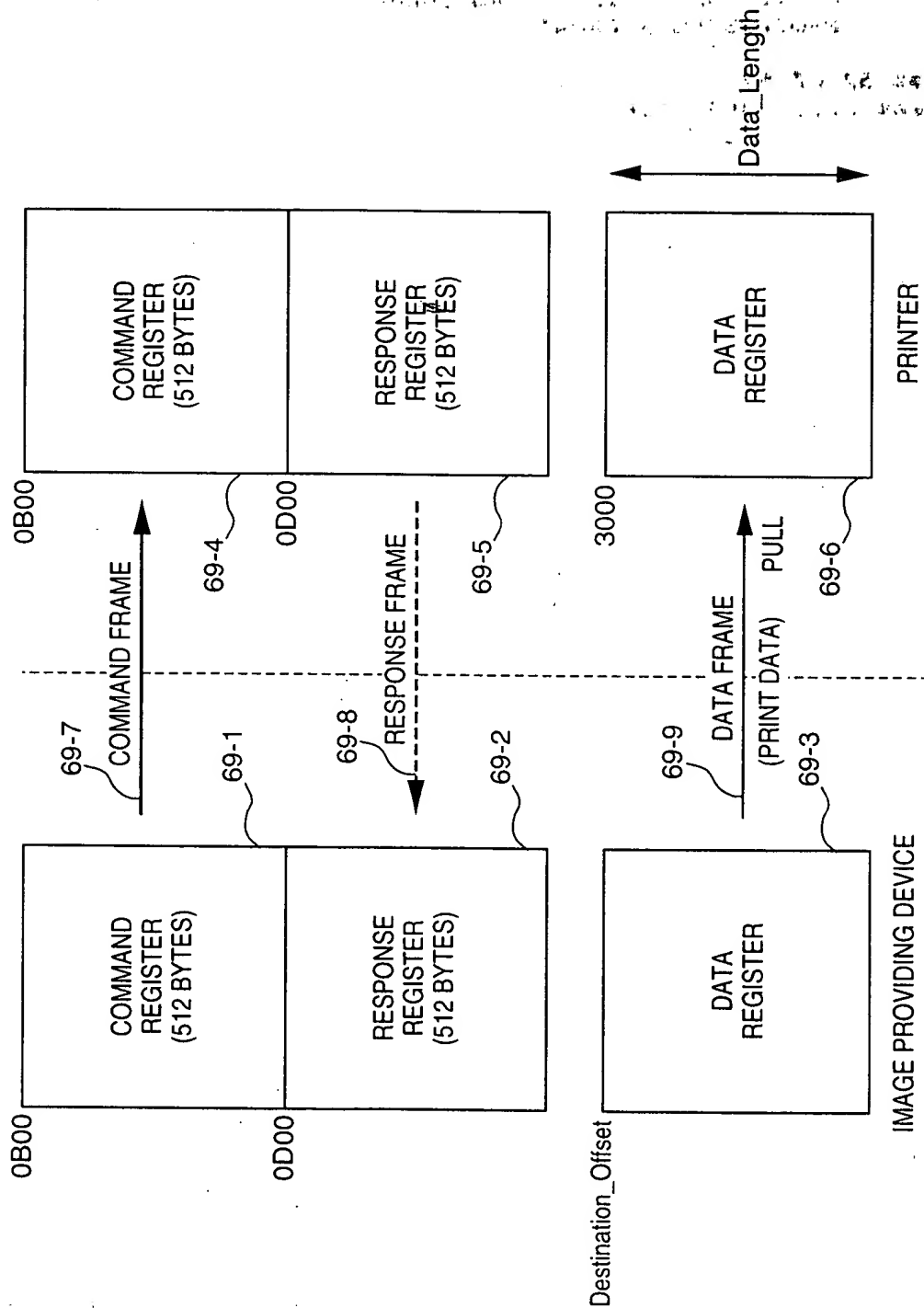


FIG. 60



## FIG. 61

IMAGE  
PROVIDING  
DEVICE

PRINTER

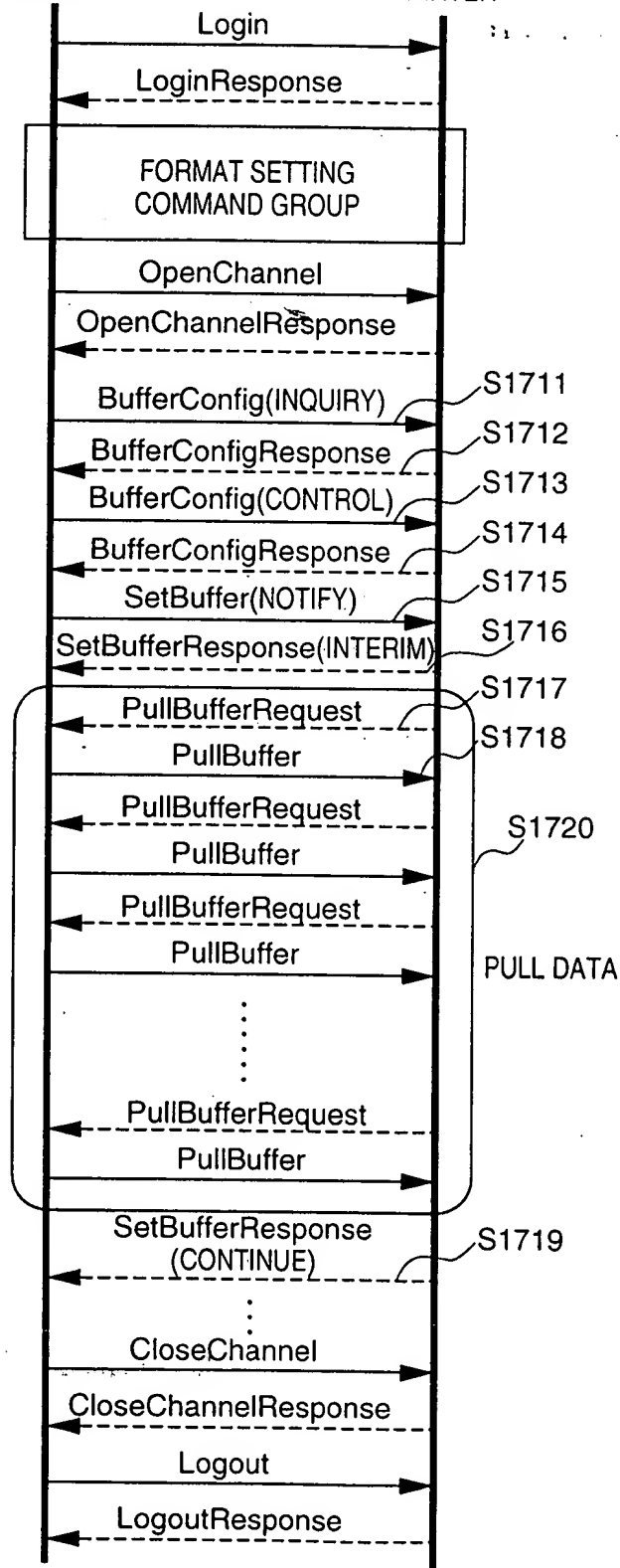


FIG. 62

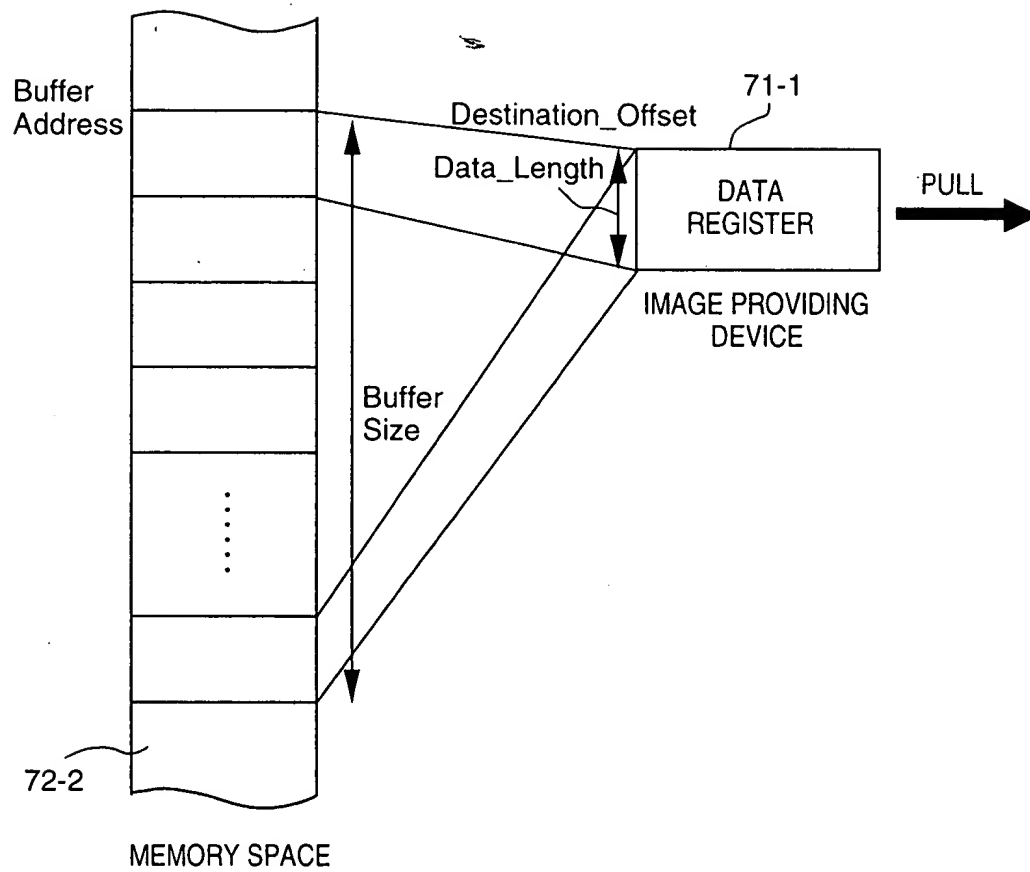


FIG. 63

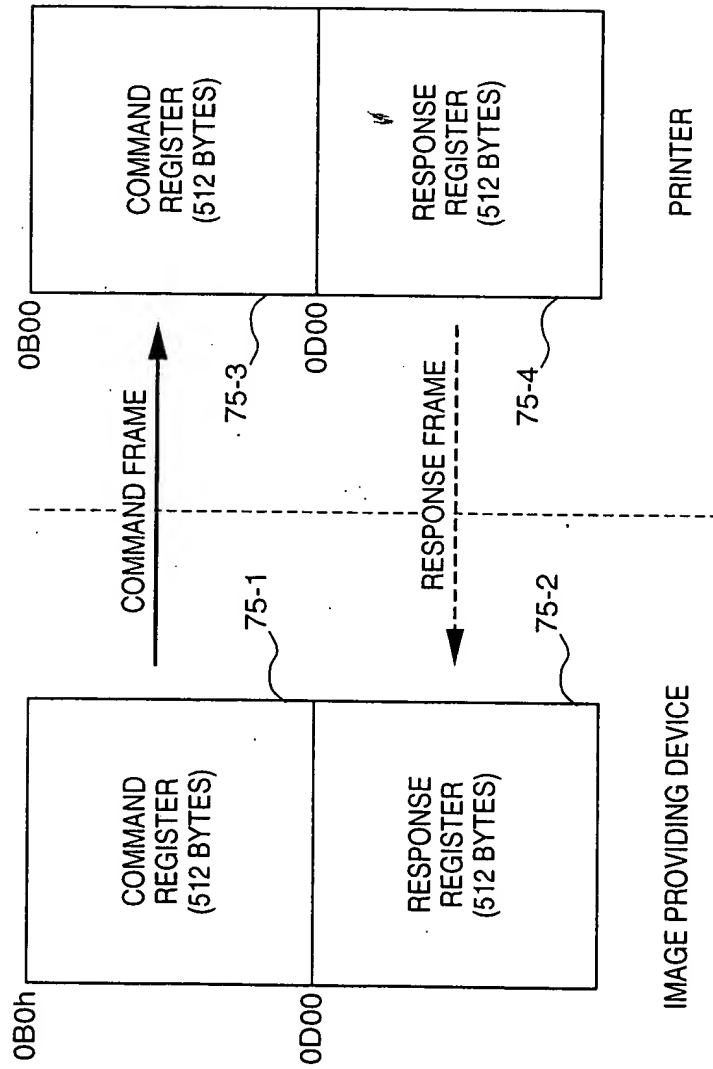




FIG. 64

